CALIFORNIA

ILLUSTRATED

170

No 4470 a. 158

Digitized by the Internet Archive
in 2016

https://archive.org/details/californiaillust00warr

THE YO SEMITE VALLEY.

CALIFORNIA ILLUSTRATED

INCLUDING A TRIP THROUGH YELLOWSTONE PARK

EDITED BY

F. K. WARREN, R.B.S.

WITH NUMEROUS WOOD ENGRAVINGS, BY THE BEST ARTISTS

BOSTON
DE WOLFE, FISKE & CO.
361 AND 365 WASHINGTON STREET

Copyright, 1892,
By De Wolfe, Fiske & Co.

Jan. 8, 1910
C

PUBLIC LIBRARY
OF THE
CITY OF BOSTON

CONTENTS.

PAGE

CALIFORNIA ILLUSTRATED 7

SAN FRANCISCO AND SACRAMENTO 22

SANTA BARBARA, LOS ANGELES, AND SAN DIEGO 37

TO SHASTA'S FEET 64

THE OLD MISSIONS OF CALIFORNIA, FROM SAN DIEGO TO SANTA CLARA . . 96

San Diego 98

San Carlos De Monterey 99

San Antonio De Monterey 99

San Antonio De Padua 99

San Gabriel 100

San Luis Obispo, De Toloza 100

San Francisco De Les Dolores 101

San Juan Capistrano 102

Santa Clara 102

Santa Barbara 103

La Purissima Concepcion 103

Santa Cruz 104

San Buena Ventura 104

Nuestra Senora La Solidad 104

San Jose 105

San Juan Bautista 105

San Miguel 105

San Fernando Rey 106

San Luis Rey, De Francia 106

Pala 107

Santa Ynez, Virgin y Martyr 108

San Rafael 108

San Francisco De Solano 108

Junipero Serra 108

THE YELLOWSTONE PARK 110

LIST OF ILLUSTRATIONS.

	PAGE
The Yo Semite Valley	*Frontispiece*
View of Yo Semite Valley from Artist's Point	7
Map of the Yo Semite Valley from Artist's Point	8
Big Tree Tunnel	8
At the Foot of a Big Tree	9
The Cathedral	10
El Capitan	11
South Dome	11
Yo Semite Falls	12
Mirror Lake	13
Inside One of the Big Trees	15
The Trunk of a Fallen Giant	16
The Big Trees of the Yo Semite	17
Nevada Fall	19
A Forest Giant	20
Sacramento	22
Views around San Francisco	23
Beach at Cliff House, San Francisco	24
The Grand Hotel, San Francisco	25
The Chinese Quarter	27
Palace Hotel, San Francisco	29
Montgomery Street	30
California under Difficulties	33
Southern California	37
A View of the Golden Country	38
The Ventura Big Grape Vine	39
Monster Grape Vine	39
The Jesuit College, Santa Clara	40
Valley of San Rafael	40
Mission Bells	41
A California Roadway	42
Reo del Castilli	43
The Monarch, Las Animas Canon	43
The Mission, Monterey	44
Saticoy Bean Field	45
Threshing Beans at Saticoy	45
Around Los Angeles	46
Bee Ranch in Los Vosas	47
A Californian Landscape	49
On the Road to San Diego	51
Hotel del Coronado	53
A Bunch of Native Grapes	55
Californian Vegetation	57

LIST OF ILLUSTRATIONS.

"Timber-filled Canon" 59
Gems of the Sierras 61
Around Mount Shasta 64
Mount Shasta 65
The Old Reading Homestead 67
Seal Point, San Francisco Bay 68
Anderson 70
Redding 71
A Good Day for Bears, Mount Shasta 72
Hunter's Ridge 73
Bluffs on the Sacramento River 74
Millville 75
Giant Trees of California 77
Crossing the Mountains 80
Hydraulic Mining 81
Redding from Linda Vista 88
Modern Mining 90
A Mountain View 92
Viaduct on the Central Pacific Railway 93
Bloomer Cut on the Central Pacific Railway 94
A Vision of our Western Empire 97
A Forest View 101
An Old Mission Town 106
Cooking Fish in the Yellowstone 110
On the Shore of Yellowstone Lake 110
Yellowstone Park 111
Yellowstone River 112
Yellowstone Lake 112
Geyser Land 113
Tower Fall 114
The Sources of the Mammoth 115
Philip Cascade 117
Mary's Veil Cascade 118
Reservoirs of Hot Water 119
The Giant Geyser 120
The Castle Geyser 121
Mud Volcanoes 124
"Old Faithful" 125
On the March through Yellowstone Park 129
A Sudden Eruption 132
The Grotto Geyser 136
A Geyser in Play 140

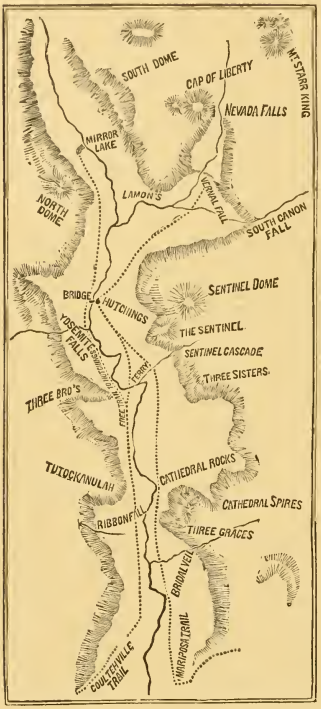
VIEW OF YO SEMITE VALLEY FROM ARTIST'S POINT.

CALIFORNIA ILLUSTRATED.

To THOSE who have viewed the grandeurs of the Yo Semite Valley, what a flood of recollections does its euphonious name recall; to those who are about to stand face to face with its magnificence, what a tremor of expectancy shoots through the veins! The traveller in foreign lands may weary of architectural sameness, and monotonous streets; here he can never tire, for he is compelled to worship nature, and ponder in silence over the splendors of God's creative genius. No two scenes are alike, shadow and sunshine are forever changing the vista; from the different points the same panorama will have altered, the mighty crags will have assumed new and more fantastic shapes under the glorious sheen of closing day.

The Yo Semite Valley, a narrow gorge, nearly in the centre of the State north and south, is about six miles long and from half a mile to a

mile in width, and is situated just midway between the east and west bases of the Sierras. It is nearly level; has an altitude of four thousand and sixty feet above the level of the sea, and is one mile perpendicular below the summits of the surrounding mountains. It bears some similarity to an irregular trough scooped out of the adjacent hills, with re-entering angles and square recesses indenting its walls. Its direction is generally north-east by easterly, until close to its upper end, when it suddenly turns, almost at right angles, and then opens out into three branches, by either of which the general level of the Sierras may be attained as if by a series of stupendous steps. Through each of these cañons there go plunging down with ceaseless roar, separate forks of the Merced River in a sequence of splendid cataracts, while at its lower end the valley contracts until it becomes a wall-bound gorge. The principal features of the Yo Semite, by which it is distinguished from all other known valleys, are, the near approach to verticality of its walls; their great height, not only absolutely, but as compared with the width of the valley itself; and finally, the very small amount of débris at the base of these gigantic cliffs.



MAP OF THE YO SEMITE VALLEY.

BIG TREE TUNNEL.

Let us suppose that the visitor has entered by the route from the Mariposa Grove of Big Trees, and thus traverses the valley, taking note of the attractions as he proceeds.

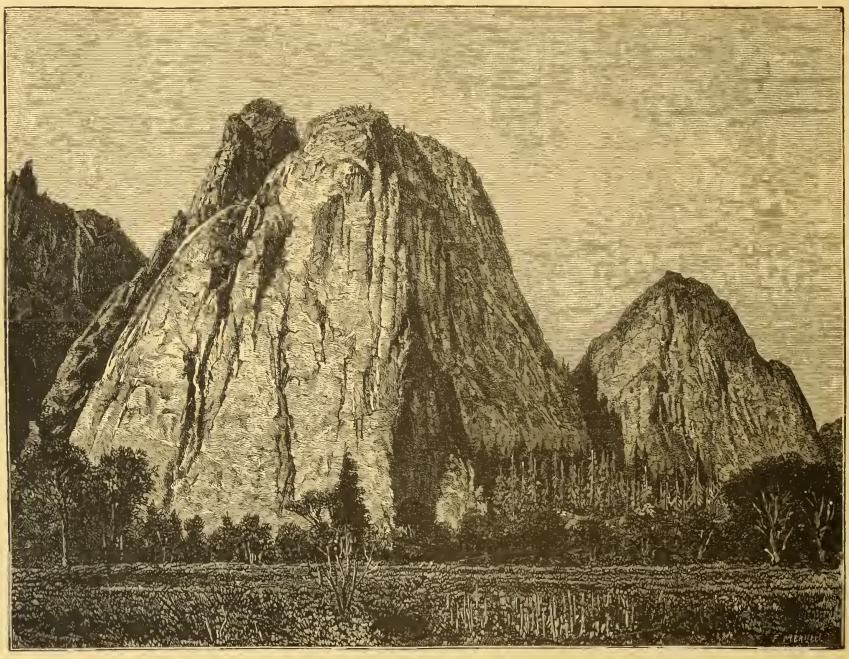
In descending from this trail or path into the level meadows of the

bottom of the valley, the traveller finds his way down 2,973 feet of steep progress, but whatever labor there may be attending it is fully repaid by the succession of sublime views that greets the eye at every turn. To his left, standing out in bold relief, is the rocky mass of El Capitan, the "Great Chief of the Valley," a stupendous cliff of granite, 3,300 feet in height, entirely divested of any semblance of vegetation. The magnitude of this mass is not to be appreciated at a glance.

AT THE FOOT OF A BIG TREE.

To the right, the traveller, advancing into the fairy-land, has the Bridal Veil Fall, one of the most beautiful in the Yo Semite. After finding its way for a few miles through meadow and brake, the river is finally precipitated over the cliff, at the west side of Cathedral Rock, into the Yo Semite, in one prodigious leap of 630 feet, when, striking upon a heap of débris, it then bounds on its way in a series of cascades for 300 feet more —930 feet in all. The effect is finest when the body of water is not too heavy, since the swaying from side to side, and the waving under the

varying pressure of the wind, is then more marked. As seen from a distance at such times, it seems to flutter like a white veil, producing an indescribably beautiful effect. The Indian name of the Bridal Veil Fall is *Pohono*, and to it is attached the following legend: In ancient days, as one of the women of the tribe was gathering berries on the bank of the creek, she slipped into the angry stream, and, being hurried down its rocky course, was swept over the brink and lost forever. Never after was she seen, or



THE CATHEDRAL.

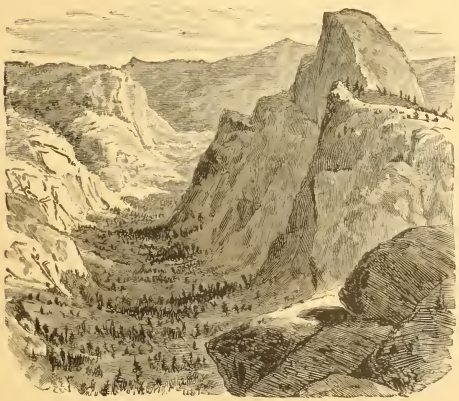
aught heard of her. On account of this mishap her companions dared not sleep in the vicinity of the cataract, nor, in passing it, would they loiter, but hasten on, hearing in the rustling leaves and descending water the plaintive warning of the lost maiden to beware of *Pohono* — *Pohono* — the Spirit of the Evil Wind.

In front of him the seeker after the beautiful has the unparalleled view of the valley; beyond, he peeps into the cañon of the Tenaya fork of the Merced. The Half Dome is detected, rising over the chain of which Sentinel Rock is a part; while in the distance is that aptly-named mountain, Clouds' Rest.

On the other side of the valley, and directly opposite the Bridal Veil, is "The Virgin's Tears Creek," which, in the season when its waters are plenty, makes a grand fall over a thousand feet. Unhappily, like many others of the streams of California, it dries up early in the season, and its magnificence is left entirely to the imagination. So concealed is it in a deep recess of the rocks close to El Capitan, that it often escapes notice; yet it is not inferior in beauty to the celebrated Staubbach of Switzerland.

EL CAPITAN.

About a mile above the Bridal Veil, and on the same side of the valley, is the mass of granite that has received the name of Cathedral Rock. Here, the Merced River lies in front; beyond, are stately firs and pines, which appear to be but bushes, yet are in reality about one hundred and fifty feet in height, while others of like size are detected crowning the summit, 2,600 feet above the valley. On the east, just beyond, shooting into the air, are the Spires — twin pinnacles of exquisite grace. They are about eight hundred feet high, two hundred feet in diameter, and joined together at the base by the walls of adamant of which the valley is composed.



SOUTH DOME.

Continuing the march, the next object of interest is the triple group of rocks whose peculiar outline, as seen from below, resembling three frogs sitting with their heads turned in one direction, is supposed to have suggested to the Indians the name *Pompompasus* — "Leaping-Frog Rocks." Their name to-day is the rather unimaginative one of the "Three Brothers."

Nearly opposite the Three Brothers is Sentinel Rock, one of the grandest in the Yo Semite, an obelisk 3,043 feet in height.

Directly opposite is the Yo Semite Fall—the fall above all others best entitled to bear the name of the grand valley. Even the finest photograph is utterly inadequate to convey to the mind any satisfactory impression or realization of how many of the elements of grandeur and beauty are combined in this waterfall and its surroundings. The first and most impressive of these elements is, as in all other objects about the Yo Semite, vertical height. In this it surpasses, it is believed, any waterfall in the world with anything like an equal body of water. And all the accessories of this fall are of a character worthy of its height, so that everything is added, which can be, to augment the impression which the descent of so large a mass of water from such a height could not fail to produce.

YO SEMITE FALLS.

The Yo Semite Fall is formed by a creek of the same name, which heads on the west side of the Mount Hoffman group, about ten miles north-east of the valley. Being fed by melting snows exclusively, and running through its whole course over almost bare granite rock, its volume varies greatly at different times and seasons, according to the amount of snow remaining unmelted, the temperature of the air, and the clearness or cloudiness of the weather. In the spring, when the snow first begins to melt with rapidity, the volume of water is very great; as ordinarily seen by visitors in the most favorable portion of the season—say from May to July—the quantity is still sufficient to produce a fine effect; still later, it shrinks down to a very much smaller volume. We estimated the size of

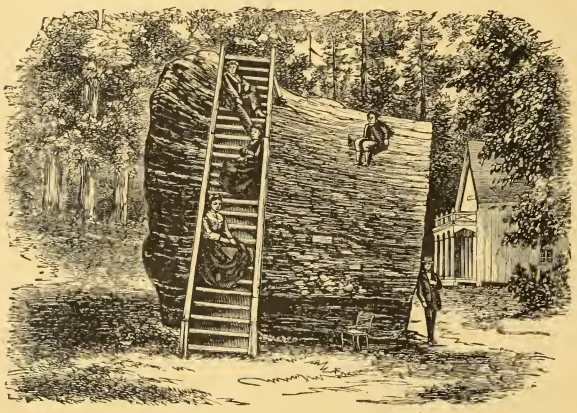
MIRROR LAKE.

the stream at the summit of the fall, at a medium stage of water, to be twenty feet in width and two feet in average depth. Mr. J. F. Houghton measured the Yo Semite creek below the fall, June 17, 1865, and found it to be thirty-seven feet wide and twenty-five inches deep, with the velocity of about a mile an hour, giving about half a million cubic feet as passing over the fall in an hour. At the highest stage of water there is probably three times as much as this. The vertical height of the lip of the fall above the valley is, in round numbers, 2,600 feet, our various measurements giving from 2,537 to 2,641; the discrepancies being due to the fact that a near approach to, or a precise definition of, the place where the perpendicular portion of the fall commences is not possible. The lip or edge of the fall is a great rounded mass of granite, polished to the last degree, on which it was found to be a very hazardous matter to move. A difference of a hundred feet, in a fall of this height, would be entirely imperceptible to most eyes.

INSIDE ONE OF THE BIG TREES.

"The fall is not in one perpendicular sheet. There is first a vertical descent of 1,500 feet, when the water strikes on what seems to be a projecting ledge; but which, in reality, is a shelf or recess, almost a third of a mile back from the front of the lower portion of the cliff. From here the water finds its way, in a series of cascades, down a descent equal to 626 feet perpendicular, and then gives one final plunge of about 400 feet on to a low *talus* of rocks at the base of the precipice. The whole arrangement and succession of the different parts of the fall can be easily understood by ascending to the base of the Upper Fall, which is a very interesting and not a difficult climb, or from Sentinel Dome, on the opposite side of the valley, where the spectator is at a considerable distance above its ledge. (The exact distance from the Sentinel Dome across in a straight line to the edge of the Upper Yo Semite Fall is two and a half miles.) As the various portions of the fall are nearly in one vertical plane, the effect of the whole is nearly as grand, and perhaps even more pictur-

esque, than it would be if the descent were made in one leap from the top of the cliff to the level of the valley. Nor is the grandeur or beauty of the fall perceptibly diminished by even a very considerable diminution of the quantity of water from its highest stage. One of the most striking features of the Yo Semite Fall is the vibration of the upper portion from one side to the other, under the varying pressure of the wind, which acts with immense force on so long a column. The descending mass of water is too great to allow of its being entirely broken up into spray; but it widens out very much towards the bottom, probably to as much as three hundred feet, at high water, the space through which it moves being fully three times as wide. This vibratory motion of the Yo Semite and Bridal Veil Falls is something peculiar, and not observed in any others, so far as we know; the effect of it is indescribably grand, especially under the magical illumination of the full moon."



THE TRUNK OF A FALLEN GIANT.

About two miles higher up the valley the main portion of it ends, when it diverges into three narrow cañons which, too, have their wonders to disclose. Through the middle of one of these the Merced River keeps its course, proceeding west to the base of the Mount Lyell group; in that to the left, or the north-westerly cañon, the Tenaya Fork of the Merced flows; while, in the south-westerly one, there meanders the South Fork of the Middle Fork of the same parent stream.

A little farther up the Tenaya cañon is the enchanting sheet of water known as Mirror Lake, an expanse of purest crystal, covering several acres, having its edge fringed with trees, while in the background rise mighty domes of rock, cold and stern in their sublimity.

The best time to visit this spot is in the early morning, ere its placid bosom shall have become ruffled with the noonday winds; then it is that from its depths appears an exact reflection of all surrounding objects. The

THE BIG TREES OF THE YO SEMITE.

lofty crags at once appear to extend downwards in precise similitude of their upward growth. The trees retain their color in this looking-glass of nature, while in the photographs of the scene it is hard to distinguish the line where earth meets water. Down in its depths we have the reflection of the "blue canopy of heaven." Let us now return to the main cañon of the Merced River, and see its own peculiar wonders. Following up that stream, the Illilouette is soon crossed, and after a mile's ride over the *talus* of great angular masses fallen from above, the base of the two great falls of the Merced, made in coming down from the plateau into the valley, is reached. "These are among the great attractions of Yo Semite, not only on account of their height, and the large body of water in the river during most of the season, but also on account of the stupendous scenery, in the midst of which they are placed."

NEVADA FALL.

That known as the Vernal is the first fall reached in ascending the cañon. The path is along the sloping sides of the mountain to the foot of the cliff over which the water plunges, and thence by a series of ladders to the summit of the fall. Indeed, this was the only means at one time of reaching the Nevada Fall, a mile higher up; now, however, it is approached on horseback, a good trail having been made. The height of the Vernal Fall is about four hundred feet. From the Vernal Fall, up stream, for the distance of about a mile, the river

may be followed, and it presents a succession of cascades and rapids of great beauty."

As we approach the Nevada Fall, the last great one of the Merced, we have at every step something new and impressive. On the left hand, or north side of the river, is the "Cap of Liberty," a stupendous mass of rock, isolated and nearly perpendicular on all sides, rising, perhaps, two thousand feet above its base, and little inferior to the Half Dome in grandeur. It has been frequently climbed, and without difficulty, although appearing so inaccessible from the cañon of the Merced.

A FOREST GIANT.

"The Nevada Fall is, in every respect, one of the grandest waterfalls in the world, whether we consider its vertical height, the purity and volume of the river which forms it, or the stupendous scenery by which it is environed. The fall is not quite perpendicular, as there is, near the summit, a ledge of rock which receives a portion of the water, and throws it off with a peculiar twist, adding considerably to the general picturesque effect. A determination of the height of the fall was not easy, on account of the blinding spray at the bottom, and the uncertainty of the exact spot where the water strikes. Indeed, this seems to vary in the Nevada as well, although not so much, as in the Vernal Fall. Our measurements made the Nevada from five hundred and ninety-one to six hundred and thirty-nine feet, at different times and seasons. . . . The descent of the river in the rapids between the two falls is nearly three hundred feet."

There is also a fall of six hundred feet in height in the cañon of the Illilouette, which is visible from a point on the trail from the hotel to Mirror Lake, and would well repay the attention of the visitor, although the ascent is difficult.

Thus we have introduced the visitor to some of the chief objects of interest in the world-renowned Yo Semite valley.

The valley was first entered by white men in 1848, if rumor be true, and afterward in 1850 and 1852; but its wonders attracted no notice from the press, and were unknown to the public until 1854, and did not draw many visitors until 1856. Since then the number has increased as California has become the sanitarium of America, and the great winter resort of Eastern people who desire to escape the rigors of an Eastern climate.

SACRAMENTO.

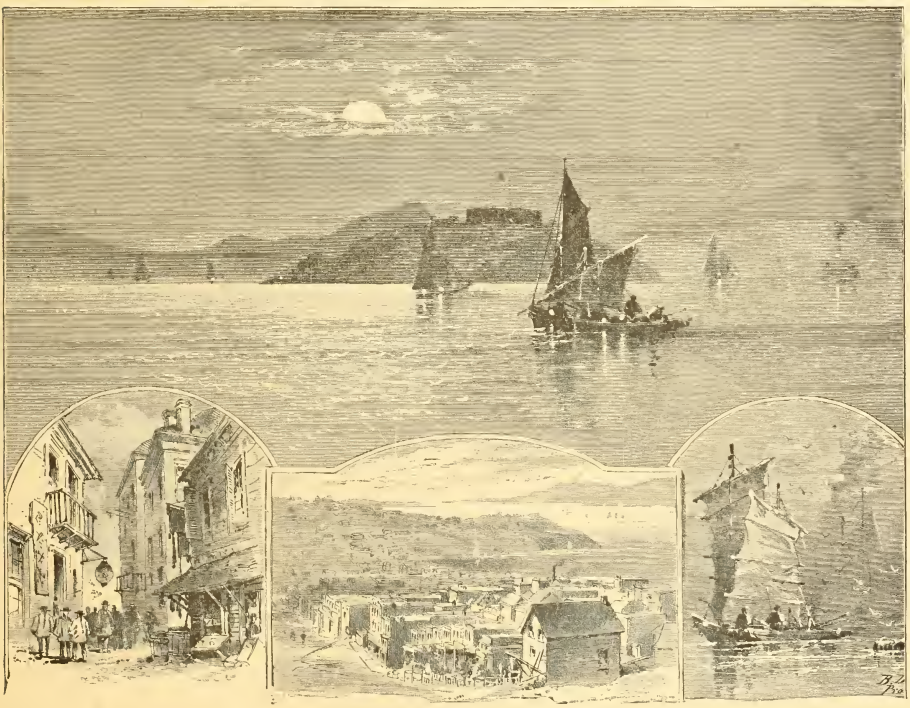
SAN FRANCISCO AND SACRAMENTO.

No DOUBT you have heard that California is a land of geological contractions, of gigantic growths, of balmy clime and fruits and flowers. You will find it all of these, and more. Along its shores there is a civilization as advanced as that to be found elsewhere in the land, and the relics of a civilization so old that accurate data concerning it are lost. California is a little world by itself. Long cut off from communication with the rest of the country, it naturally assumed an independence that it retains even yet, when railroads are plenty, and a trip across the continent a matter of hours.

Despite the connection of multiplied rails, there are many native to the coast who believe that for general perfection no portion of the world equals their own, and that San Francisco should by all rights of importance and comeliness be made at once the capital of the Universe. This feeling is not an unnatural one, for San Francisco, looking from its hills

out over the Pacific, has one of the most beautiful of sites, and in its own finish is without an equal.

The "Queen" or "Bay City," both in point of commerce and population the metropolis of the Pacific coast, is situated at the north end of a peninsula which is thirty miles long and six miles wide at the city, and separates the Bay of San Francisco from the Pacific Ocean. The city stands on the east or inner slope of the peninsula, and on the western shore of the bay,



VIEWS AROUND SAN FRANCISCO.

while it is backed by a range of hills of considerable altitude. Its entire area is about 26,861 acres, including the presidio reservation of fifteen hundred acres, belonging to the General Government. In 1846 these hills were cut in many places by deep gullies, while the low ground at their base was narrow, except in the southern part of the city, where there was a succession of barren sand-dunes, loose and impassable for loaded wagons. The sand-hills have nearly all been levelled, the hollows and gullies filled up, and where large ships rode at anchor in 1849, paved streets, handsome

edifices, and busy marts are to be found. There is but one road leading out of the city — the continuation of Mission Street — and in the business parts the houses are closely built, and in architectural appearance will vie with any other city in the world. In the north-east corner of the city is Telegraph Hill, two hundred and ninety-four feet high; and on the west side Russian Hill, three hundred and sixty feet high. The densely populated quarters are in the amphitheatre formed by these hills, and from them a fine view of its beauties may be had.

At different stages of her history she has passed through many vicissitudes. In her early day, fire would appear to have been the bane of

BEACH AT CLIFF HOUSE, SAN FRANCISCO.

her existence; no less than six times within twenty-one months was she almost devoured, at a loss to her residents of twenty-two and a half millions of dollars.

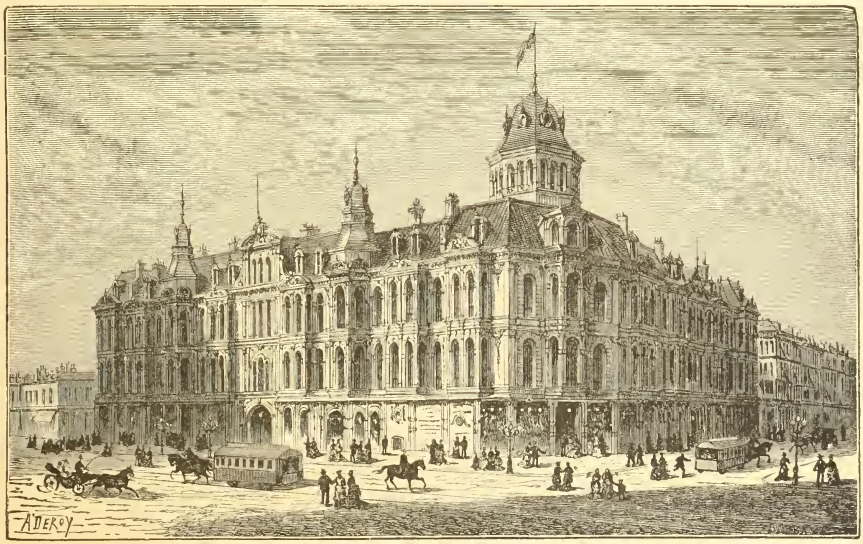
Her commerce was depressed and her growth retarded for a period of four years, from 1854 to 1858. This caused attention to be turned to the development of her agricultural resources. These surpassed the most sanguine expectations, and enabled her to export large quantities of wheat. The valuable discoveries of silver have more recently added to her wealth and importance; and it is confidently believed that her greatness in the past is but a faint foreshadowing of her future glory.

The city is regularly laid out, though the plan is by no means

uniform. The streets are broad, cross each other at right angles, and are usually paved with Belgian blocks, or cobble-stones, while a number of them, on which are built the private residences, are planked.

First and foremost among the attractions of San Francisco are its hotels, finer than which there are none in any part of the globe.

Fortunes have been put into palatial homes and immense business structures. A volume might be written telling of its steeples, its wharf, and sail-flecked bay. That the shipping interests are immense is certain without any specific figures when it is known that San Francisco is the



THE GRAND HOTEL, SAN FRANCISCO.

most important port on the western coast of America. The entrance to its harbor, the Golden Gate in fact of legend, would form an interesting chapter, while the curious and loathsome sights of the Chinese quarter would furnish material for another. The city is one of contrasts. There is a lavishness of wealth, and against it there is the poverty of foreign element. However, the people are, for the most part, in comfortable circumstances, and more than contented, for they glory in the fact that they are living in San Francisco, and would scout any intimation that any other place could approach it. There are plenty of schools and churches, and an abundance of the best elements of society. The place is noted for

its love of ornaments, and the enthusiasm with which all legitimate sports are upheld. Living expenses are cheap, and fruit so plentiful as to cost what seems to the new arrival almost nothing. The same is true of vegetables. The hotels and restaurants are credited with giving excellent fare and at cheap rates. This latter clause does not apply to the large hotels, that are the finest, perhaps, in the United States, and where the rates are the same as at first-class hotels anywhere. The climate is peculiar, but to those accustomed to it none will compare with it for general merit: it never reaches either extreme, but allows the use of clothing of moderate thickness during the entire year. There is opportunity to meet characters from all lands, and within pleasant reaching distance are innumerable places well worth a visit. A sail across the bay to Oakland will reveal more lovely homes than any other city of the Union can boast — homes that are lovely in themselves, surrounded by every comfort and luxury that good taste can suggest and wealth supply. In the yards the grass is always green, and fountains playing uninterruptedly through all the seasons. Trees blossom the year round. Snow is something unknown, and to most natives of San Francisco would be the greatest of curiosities.

While there is much in San Francisco that must be seen, including the parks and gardens and theatres, the place is always a natural base of movement for a series of excursions throughout the State. There is a cable road in successful operation, the first of its class to come into use, while other means of transit within the city are ample.

San Francisco, all in all, is one of the most interesting cities in America, and is becoming more beautiful and attractive year by year. It is naturally cosmopolitan in character, and the visitor can take a foreign jaunt in miniature by walking through certain sections of the town. With one of the finest harbors on the globe, and occupying an important position in connection with the world's commerce, its shipping interests are of vast proportions. The growth of the city has been very rapid, especially since the opening of the Central Pacific Railroad, in 1869, and the present number of inhabitants is conceded to be over three hundred thousand. Oakland, situated just across the bay, is a city of over forty thousand inhabitants, that was originally settled no longer ago than 1850.

The greatest curiosity in San Francisco is the Chinese quarter, a rectangular block, seven squares in length, by three and four in breadth.

THE CHINESE QUARTER.

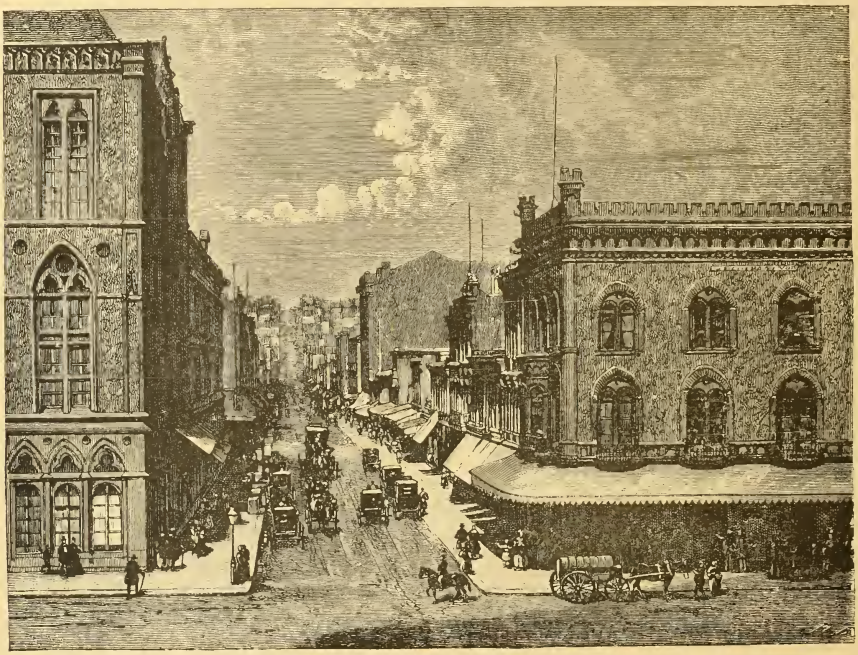
It is near the business centre, and only a few blocks away from the palaces of the railway millionnaires. The houses are nearly all tall, decayed buildings, swarming with tenants. The blocks are cut up into sections by narrow alleys, and filled with squalid underground dens, and attics whose overhanging dormer windows shut out all but a slender patch of sky. The cellars are occupied as shops, factories, or opium dens. The main streets are lined by the stores of the large Chinese merchants. You find yourself in a populous corner of China. Even the fronts of the houses have assumed a Celestial aspect, not only in the signs and

PALACE HOTEL, SAN FRANCISCO.

placards at the windows and shop-fronts, but in the altered architecture and decorations. An interesting experience is to spend a half-hour in watching the performance in a Chinese theatre, and listen to the ear-piercing, mournful music, and then adjourn to a neighboring restaurant, drink genuine Chinese tea in Celestial style, and taste the cakes, preserved watermelon, and sweetmeats. In all the stores and other portions of the Chinese quarter, Eastern visitors are received with the greatest courtesy.

The Palace Hotel is a vast establishment, and, in reality, one of the wonders of the Pacific Coast. Not only is it one of the largest hotels in the world, but, at the same time, one of the richest and

most elegant. In one edifice, it covers the block bounded by New Montgomery, Market, Annie, and Jessie Streets, occupying an area of 96,250 feet; and the distance around its outer wall is exactly one-quarter of a mile. In addition, the Grand Hotel, on the opposite corner of Market and New Montgomery Streets, has been absorbed in this colossal hostelry. Compared even with the largest hotels in Eastern cities, the Palace seems of vast proportions. There is a promenade on the roof



MONTGOMERY STREET.

of a third of a mile. The visitor is first ushered into the grand central court, into which carriages are driven. This is a noble enclosure, one hundred and forty-four by eighty-four feet, seven stories high, and roofed with glass. Ornamental balconies run around the four sides, at each floor, and choice tropical plants relieve the glaring white of the marble fabric. Around the ground promenade are grouped the office, reception-parlors, reading-rooms, breakfast and dining rooms, etc., with wide communicating hallways, the chief parlors being upon the second floor. The rooms for the guests are capacious, and all of them are handsomely furnished.

The building having cost six millions of dollars, another half million was expended for furnishing. The total number of rooms exclusively for guests, above the lower floor, is seven hundred and fifty-five, and most of these are twenty feet square, none being less than sixteen feet square. There are five elevators, and four spacious stairways. There are special annunciators and a special service on each floor, with pneumatic tubes for letters and packages, communicating with the office. The office, reception-room, dining-rooms, parlors, and other public apartments are very spacious, and truly palatial in their appointments. The general style of architecture, within and without, is the reverse of ornate, but there is solidity, strength, and permanency in every part. The countless bay windows, repeated on every side, form, perhaps, the distinguishing feature of the massive fronts. The deep foundation wall is twelve feet thick. Stone, iron, brick, and marble are the chief materials of this great structure, and of brick alone thirty-one million were used. All outer and inner and partition walls, from base to top, are solid stone and brick, built around, within, and upon a huge skeleton of broad wrought-iron bands, thickly bolted together, and of such immense size as to have required three thousand tons for this purpose alone. Not only in the vast proportions of the edifice, but in every appointment, the stranger is impressed with a sense of the fitness of the name. The establishment is a veritable palace.

The city Sacramento, eighty-nine miles from San Francisco, is the capital of the State of California. It is delightfully situated upon the east bank of the Sacramento River, which courses through the largest and most productive grain-fields, vineyards, and orchards in the world, the very paradise of all the Golden Coast. The river is navigable from San Francisco to Colusa and Red Bluffs during the entire year. Its upper waters abound in trout, and salmon are taken throughout its whole length, the salmon-packing industry being among the important commercial features of Sacramento.

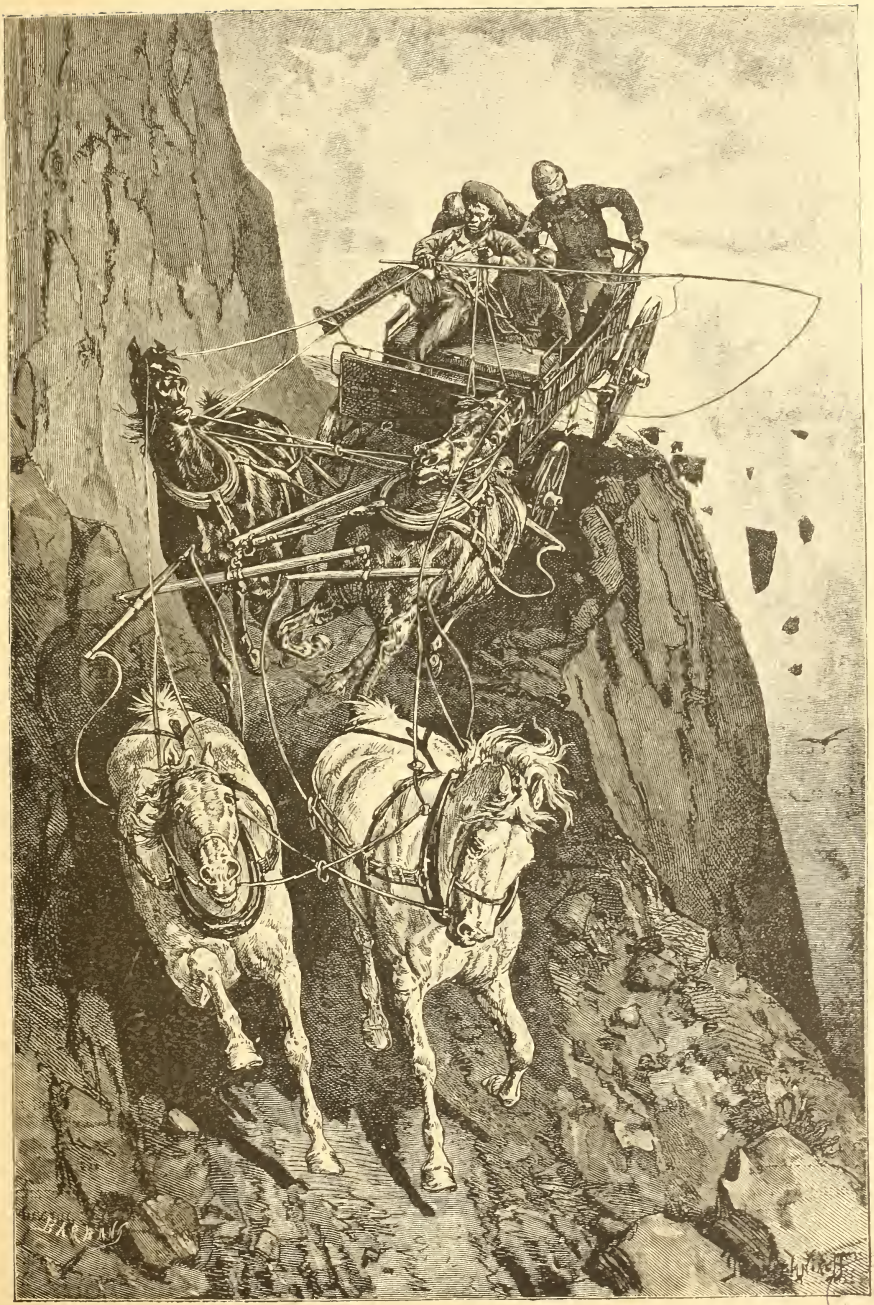
The climate is always pleasant and moderate. There are many beautiful homes in the make-up of the city. It is, in fact, an ideal place for a home, — the surroundings entrancing, the climate as nearly perfect as climate can be, and avenues of legitimate trade constantly widening and lengthening as the population becomes more dense, and cultivation of the soil more nearly secures the best result of which it is capable.

Topographically, the city is situated very nearly in the centre of the State; and for a political seat could not be better located for the convenience of the people of California. The city has a population of thirty thousand souls. Its municipal area is something in excess of four square miles. Fully two-thirds of this is compactly built. Its streets are broad, heavily shaded, and afford admirable drives. In its homes, Sacramentans take pardonable pride, since, for beauty of surroundings, floral wealth, and choice foliage, their equals are few.

The city is admirably related by railroads to the trade and transportation interests of the coast. The California and Oregon Railroad leads hence northward; the Central Pacific east to the transmontane regions; the California Pacific, on the west side of the Sacramento River, connects the city with San Francisco and its upper suburban towns and cities; the Western Pacific connects it with the San Joaquin Valley, the Southern Pacific leading to the Gulf of Mexico, and by continuation from Lathrop makes a second connection with San Francisco, and by branch lines with the Santa Clara Valley. The Sacramento Valley and Placerville line leads from the capital city to the El Dorado Sierras, and in a few weeks will make Placerville its terminus. Feeders to the great central lines connect Sacramento to Amador, Nevada, Colusa, and Calaveras counties. By navigation on the Sacramento River, the city has made relations with the entire tier of river counties.

Sacramento is liberally endowed with churches, and maintains one of the largest and best-equipped school systems, supplemented by several private educational institutions. One of these, the Sacramento School of Design, occupies the E. B. Crocker Art Gallery, a superb building presented to the city by Mrs. E. B. Crocker, and valued, with its collection of old paintings, at about six hundred and fifty thousand dollars. The State Capitol, situated in the heart of the city, is a classical structure erected at a cost of upwards of three million dollars. The Central Pacific Railroad shops in this city are the largest mechanical works upon the coast, and give employment to nearly two thousand skilled and unskilled workmen.

The trade of Sacramento aggregates in its branches about sixty million dollars annually, and extends throughout all the central and northern and mountain sections, and the adjacent States and Territories. Because of the minimized fixed capital required, centrality of location, terminal facilities,



CALIFORNIA UNDER DIFFICULTIES

and climatic advantages, this trade exists and is constantly expanding. Sacramento is the chief fruit-shipping station of the State, sending forward in season far more fruit than any other point, and generally as much as most others combined. Its rail and river transportation facilities, nearness to the mountain range, contiguity to the great foot-hill region, centrality of location, and climatic desirability, all conspire to make it the most prominent fruit-forwarding post of the State.

The county of Sacramento is largely devoted to fruit-raising, and it is no exaggeration to say that for grapes, berries, and general fruits, its soil is not second — and in many respects is first — in comparison with any and all other sections. Its river bottom lands are unquestionably the richest of the coast, making Sacramento pre-eminently the chief hop-raising territory of the United States. The largest hop-yard in the world is in this county, as also the second largest vineyard of the world. Of wheat, barley, and alfalfa, the county yields abundantly, and of the first quality. The speculative spirit is wholly absent in Sacramento and vicinity, but not the spirit of progress and enterprise. The business and property interests maintain a vigilant Board of Trade, an Improvement Association, and an Immigration Society, all actively engaged in promoting local interests.

Irrigation has not been needed in the county, nor employed, save in berry farms and gardens through agencies that lift water from bored wells, it being found in quantity and purity in a gravel stratum underlying most of the county area.

In the mass of ideas, afloat in the local and Eastern press about Northern California, there are two common kinds of mistakes. The one class of errors has arisen from too much telling and believing; the other from too little. Enthusiastic local boomers have pictured it a paradise without a drawback in point of climate and fertility; and equally enthusiastic boomers of other sections have as assiduously cried down this idea with chilly insinuations of frosts and barren fields.

There is truth enough in both sides of the argument to make it dangerous. The settler coming to Sacramento, need not expect to find a frostless region, with endless orange and lemon groves, any more than in regions farther south. But he will find a climate genial and bracing, free from the enervating quality that is the curse of Southern California; and oranges and lemons enough ripening in the open air to convince the most

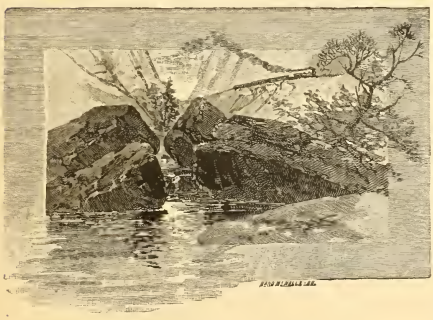
sceptical of the practicalness of raising them for market in this section. Just now, however, Sacramento County points to them only as an index of more substantial probabilities. Where the orange grows, the vine and the fruit-tree will flourish in tenfold ratio. The culture of citrus fruits is not sufficiently advanced yet to make competition with the South.

But in raisins, apricots, peaches, and all other fruits, the balance is very decidedly in favor of the North. The raisins made in Sacramento County, being grown without irrigation, are sweeter and thinner-skinned than the more famous Fresno brands. The finest pickled olives exhibited last year were grown at Florin, Sacramento County, and for the citrus fruits themselves, a late analysis of Northern oranges, by Professor Hilgard of the State University, has led to the publication by him of the statement that the percentage of sugar and absence of acid is, on the whole, about the same as that found in the Riverside and Los Angeles fruit; and that the question is now one of selection of varieties instead of practical possibilities of their being able to live.

No other county has such varied resources that are more easily or profitably developed. The people are prosperous, cultured, and progressive. They enjoy an enviable reputation as hosts, and maintain the standing of the capital city of California by unequalled liberality in entertaining strangers. The outlook for the city and its suburban county appears to them to be the brightest. Free from the speculative craze; values not suffering from inflation or decadence; immigration steadily coming in, of the most desirable character; local capital being abundant, trade expanding, and the adornment of the city and its suburbs constantly being made; manufactures increasing, transportation facilities augmenting; society orderly, stable, and of high moral tone, Sacramento presents herself as one of the most desirable and inviting localities of the Pacific Coast.

SOUTHERN CALIFORNIA.

SANTA BARBARA, LOS ANGELES, AND SAN DIEGO.



SOUTHERN CALIFORNIA is a favored land, lavished with favors by nature, and because of these favors, beloved by man. It embraces Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, San Diego, San Bernardino, Keru, Tulare, and Fresno counties. In almost any one of these, there is some place in which centres the interest of the travelling public, for the cities bearing the same name as the counties are famous as winter resorts.

Paganism is the Santa Barbara of Christianity. She was a daughter

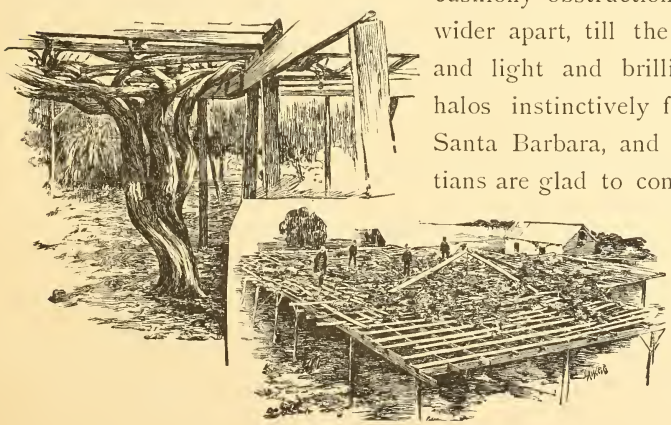
of the rich Dioscorus of Heliopolis. Jealous of her suitors, he shut her out of sight in a high tower, from which the gentle maiden studied the stars to such good purpose that the Creator of the celestial world was gradually revealed to her reverent attention. When Dioscorus knew of the apostasy he pursued her with so much hatred that his vengeance was finally successful against the heavenly protection several times accorded. In punishment for taking her life, he was utterly consumed by a tempest of lightning and rain.

A VIEW OF THE GOLDEN COUNTRY

In devotional pictures, Santa Barbara bears the sword and palm in common with other martyrs; the diadem is a martyr's and not a princess's; the book is emblematic of her studious life; but her peculiar attribute is the tower with three windows, in reference to the legend of the saint's belief in the Trinity. She is a protectress against thunder and lightning (which in this country is a ridiculous sinecure), firearms and gunpowder and sudden death. She is the only female saint who carries the cup and wafer. The tower is often a massive building in the background, while Santa Barbara holds in one hand the sword, in the other the palm and gospel. If a feather is introduced, it is in reference to the heavy blows given by her father, but received on her tender flesh as soft feather strokes — a grace accorded by the merciful powers.

The best known of the Santa Barbaras of art is the noble figure kneeling at the left of the Madonna di San Sisto. As Raphael painted that picture for the refectory of a monastery, he introduced a portrait of San Sixtus in place of Santa Barbara's customary pendant, Santa Elizabeth. There is only one church in England dedicated to this martyred virgin, that of Ashton-under-Hill, Gloucestershire. But the Spaniards bestowed her name upon the choicest spot on the California coast. It is a little belt of land not over thirty miles wide, by seventy long, from Point Conception to Buena Ventura. A sharp turn in the coast-line, changing its general trend to a due easterly and westerly direction, gives a climatic effect that is claimed to be, if not the best, among the best in the world. If climate is weather in a chronic condition, and weather is climate in an acute form, the claim holds good. Occasionally, there is bad weather, rain falls, fogs settle, dampness prevails — but behind the clouds the sun is still shining, and little smiling rifts of blue peer through the cushiony obstruction, tearing it wider and wider apart, till the whole sky is so blue and light and brilliant that glories and halos instinctively form themselves about Santa Barbara, and good American Christians are glad to consider her their patron saint.

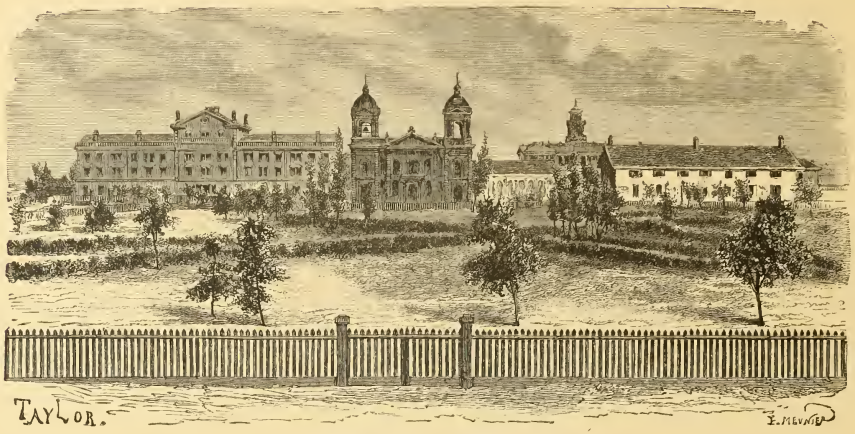
THE VENTURA BIG GRAPE-VINE.



MONSTER GRAPE-VINE.

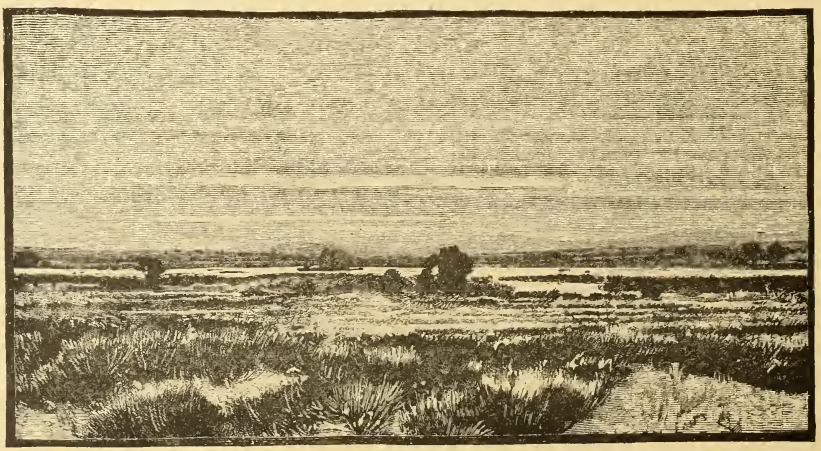
There is another cause for rejoicing connected with this matter. Talk of the weather is so entirely superfluous that the most hard-hearted would scarcely venture to introduce the topic for conversation. Set the average mind free from doubts, uncertainties, perplex-

ities, possibilities, and probabilities of weather, and it is surprising how much leisure and serenity immediately ensue.



THE JESUIT COLLEGE, SANTA CLARA.

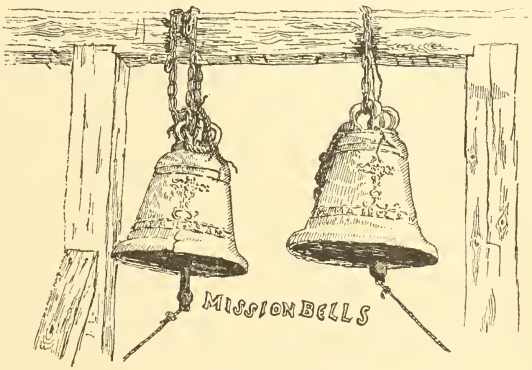
"A regular Santa Barbara day," means the very highest conception the human being can form of perfection. To enjoy such days, means not only to live out one's threescore years and ten, but to remove some of the reasons that have threatened to make one unwilling to do so. Taking the



VALLEY OF SAN RAFAEL.

climate, then, for granted, thankful for the daily return of so much beauty as air and sky at their clearest and bluest express, let us turn to Santa Barbara herself. Her chief features are the Santa Tuez Mountains, the

configuration of which, though of the same general type as the Sierra Madre, present even more variety of tunnels and funnels. Given a horizontal line, to which to bring the greatest number of divergent and many-angled lines — that is the well-deduced problem. To gain the utmost indentation to the space, in shirred and gathered and criss-cross arrangements, in wonderful deep-drawn cañons, up and down, over and across the sharp, high ridges that cut the sky three to four thousand feet away — it is an exercise to attempt to draw the mass. But when it is remembered that each pair of ridges, each corner, each nook, represents rollicking streams, wild tangles of vegetation, groves of huge sycamore torsos carrying vast masses of foliage to immense distances, spanning the rocky *arroyo* beds with bulging branches parallel with the earth, and blossoming out into respectable trees almost out of sight; or magnificent parks of oaks riddled by the havoc of time, till their venerable trunks, hollowed and eaten to merest shells of bark, still barely support the compact, black canopies of impenetrable leaves. May it not be said, taking all these things with the innumerable multitude of details that rightfully belong thereto, that bewilderment is excusable? Now the feathery and fragrant ceanothus softens the rocky outlines, and a blue breath from the sage plant lays a delightful Ruskinian mystery over all. A channel road leads along the shore to Carpenteria. W-like curves give foaming breakers on the hard beach, while the charming collection of Santa Cruz, Santa Rosa, and Anacapa Islands so diversify the boundless ocean, that it stands not only for that, but for lakes and rivers, a complicated riparian view. At Carpenteria is the huge geranium, one hundred and sixty-five feet of foliage circumference, from one stalk! And even the buttercups are lavishly supplied with double our number of petals, and the poppy of the East here gives its name to the most gorgeous and pure piece of coloring Nature can make. Think of finest gold, of clearest lemon, of deepest orange, on silkiest texture, just bedewed with a frost-like sheen, a silvery



film, and you have a faint impression of what an eschscholtzia is. Multiply this impression by acres of waving color! And in February, too!

Or, go to the Las Casitas Pass, that lies between Santa Barbara and

A CALIFORNIAN ROADWAY.

the Ojai Valley. There are more oaks, — gnarled, twisted, venerable. All over the river-bed rocks the chillicothe trails its clematis-like blossom, and hangs its spiked seed-globe on every tree branch. Strawberries in blossom and in fruit, tall, yard-high fern-fronds unrolling their curls in shadows of

huge boulders, the music of hundreds of song-birds, all these details combine very satisfactorily in a day's excursion. There are numberless delightful days to be spent in going to fine ranches, where olives are raised for pickles and oil, where almond orchards, sheeted in pink and white, spread a bewildering mass of color, or the cathedral oaks lay their rich shadows on the vividly brilliant grass.

REO DEL CASTILLI.

The way to Montecito by several roads is always the best, whether the ragged, untidy eucalypt hill be chosen, or the park-like drive by villas embowered in acacias (now in flaming yellow livery) and in every variety of palm that will thrive here. -The names of cañons are legion. The Mission Creek finds its way through one, and by a series of beautiful bends at last empties itself into the Pacific by Santa Barbara beach. The Coldstream and Sycamore cañons, and others, raise the number of rides to twenty-eight. Donkeys are little used, but horseback riding is well-nigh universal. All the horses are guided by the neck, and natural tails are universally *en règle*. Silver ornamented and hand-embossed leather saddles, brildes, belts, and hatbands are the fashion, and, as a rule, the shorter the man, the bigger the sombrero. Boating is out of the question, the huge breakers making landing, except from long piers, next to impossible. When the roads are improved, driving will be delightful. At present, they

THE MONARCH, LAS ANIMAS CAÑON.

are in a sad state. The main street, State, has been partially graded after being ploughed; the process is to go on piecemeal, till it is all well paved. As sewer pipes and other improvements were necessarily simultaneous, the result is that the break in the horse-car track, between the Arlington Hotel

THE MISSION, MONTEREY.

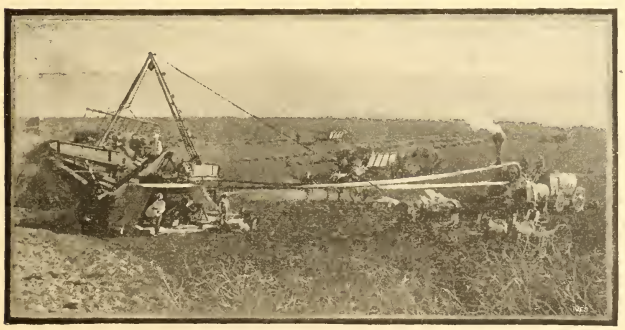
and the beach, a distance, say, of two miles, requires an annoying change from car to 'bus and from 'bus to car. It was unfortunate that so protracted a work on the streets should be undertaken during the season at Santa Barbara. But it was feared, if second thoughts were allowed,

the capitalists might get discouraged. The estimated cost is $160,000. Hot water is a scarce luxury all through the State, and it is true that a lady whose family occupied four rooms at the hotel for three months at $3 each per day, could only compass a teacupful for her teeth every morning. That pathetic teacup was always placed at her threshold, never more, never less. China-boy chambermaids have adopted some of our customs. They say, "You know China-boy's pocket, we know what you want."

SATICOY BEAN FIELD.

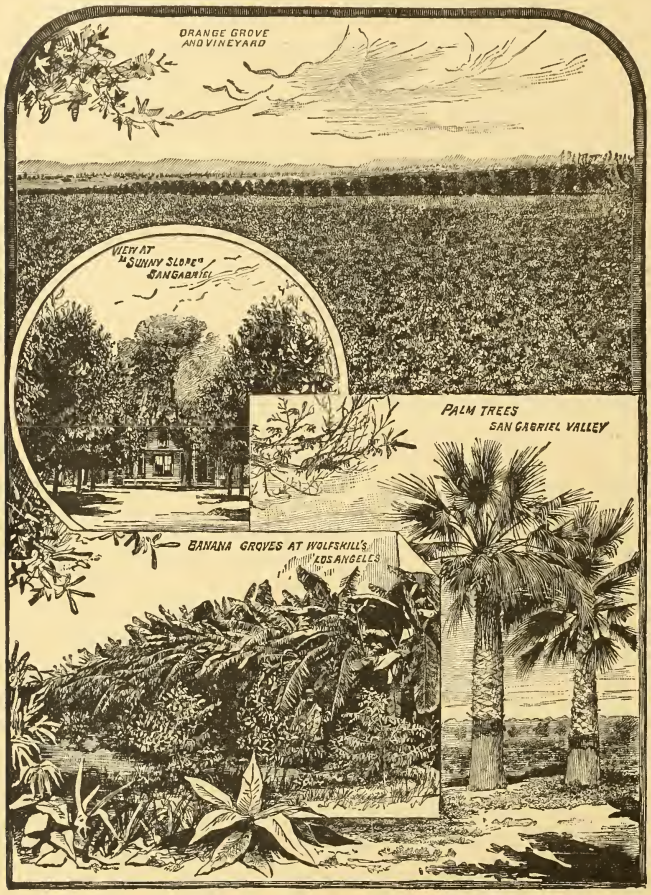
There are two Protestant missions among the Chinese, at both of which we heard the Gospel Hymns sung in English, and in their native tongue. At the Presbyterian chapel, a young native accompanied the choir on the organ. Some decorated vases, by the same organist, were exhibited, quite in the Japanese style of elaboration. An evangelist was present, dressed in *Melican* style, with his cue cut off; both most heroic measures, as you know. The eagerness to learn is great, but the teachers were not so sanguine about the desire to receive Christian truths.

A California land sale is supposed to be characteristic. When one is advertised here, the sorrow of the San Barbarenos is great if the weather happens, as it proverbially does, to be bad. The San Franciscans and Los Angelites rejoice over every ill wind to Southern California, and much of the wit of the auctioneer turns on this reciprocal feeling. An excursion train, a free lunch, a band of music, and free omnibuses out



THRESHING BEANS AT SATICOY.

are the visible signs of a land sale. More recondite ones lie in the minute but numerous white numbered stakes that mark the site of a great and prosperous city in the near future. Lots, from thirty to fifty feet front, are the regulation size, and, of course, much too tiny to afford a pleasant house. Of course, too, you can take any number you can pay for, but they "come high."



AROUND LOS ANGELES.

"Lot number so-and-so, on which I stand," began the auctioneer.

"Take up your feet, and let us see it," cried some wag.

"Ladies, why don't you bid higher?" he cried, with a pleading voice, as if all the women were making bids.

"The ladies are holding a consultation"—

"Or a hen convention," interposed the funny man.

"Was it Byron or Macbeth who said, 'When a woman will she will, and when she won't she won't, and there's an end on't'?"

"I can testify *that* is true," said a slick City Hall kind of man, raising his tall beaver from his unctuous locks. All this was so convulsively funny, we were constrained to retreat, all our money still in our pockets, except the quarter we had to pay to get home.

Following southward, we come to Los Angeles, the most famous of the resorts of Southern California. It is, with its vineyards and groves of semi-tropical fruits, the city next to San Francisco most eagerly sought for by the tourist. Taking everything into consideration, the temperature, healthfulness of climate, grandeur of mountain scenery, productiveness of soil, and facilities for travel, both by rail and water, it is without superior in California or elsewhere in the world, either for temporary or permanent residence.

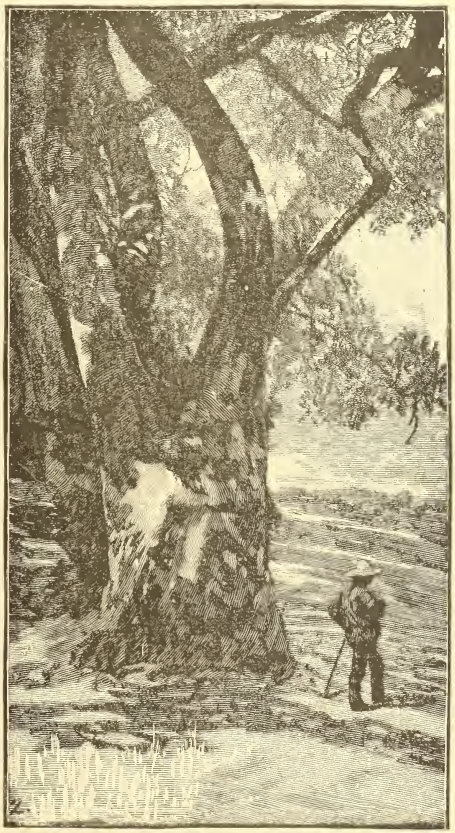
The deliciousness of the atmosphere is something only known in this paradise. It is as much the property of that locality, as are the mountains, and the rivers rushing between. The winters are perfection. When New England trees are lifeless, and the landscape only a drear and chilling white; when in the Middle States the waters turn to ice; when the winds sweep pitiless over the plains, — Los Angeles is at its best. Every part of nature seems to conspire after perfection. Leaf and bud and fruit crown the locks of December. All is wrapped in verdure; all exhales the fragrance of springtime. With scarcely twelve thousand inhabitants in 1880, the metropolis of Southern California has in nine years increased in population to about fifty thousand. No city in America has advanced more rapidly or more surely. The city is very brilliantly lighted with electricity; and cable-cars, electric-motor lines, and horse-cars have been introduced in addition to its several lines of steam railway. The old section of the city was irregularly built of *adobe;* but the march of improvement has left but few relics of early Los Angeles, except the original church, which stands upon Main Street, in the midst of all the life and bustle of the rejuvenated city — a quaint reminder of other days. The main thoroughfares have an aspect of business activity that even

BEE RANCH IN LOS VOSAS.

San Francisco cannot excel. Los Angeles is emphatically a city of groves and gardens. Fruits and flowers abound everywhere. There are large orange orchards and vineyards within the city limits, and many private residences are embowered in flowers, and surrounded by park-like grounds. The public edifices are elegant and imposing, and one of these is a handsome opera-house. It is but natural that such a spot should have drawn to it much that is best from every grade of society. The man of wealth who only desires a home, goes there; the invalid whose means admit of following his choice, turns to the gentle touch of the perfumed breath of Los Angeles for relief. The people are happy, prosperous, contented. It would seem that they have little left to desire. The person who would not be satisfied with his condition there, need look no further. There may be happiness for him, but it is in some other world. Los Angeles is well provided with hotels, but they are full throughout the year. The city is lighted both by gas and electricity. There are carriage drives through localities of charming interest, to Pasadena, to San Gabriel, Sierra Madre Villa, and railways running to all points. The whole country is watered by splendid rivers, and is rich in natural deposits as well as in soil, embracing coal, petroleum, tin, gold, and silver. The extreme fertility of the soil has rather obscured, until recently, the possibilities lying underneath. Its vineyards yield wine and brandy to the value of yearly millions. It produces more corn than all the rest of California. The wheat crop, besides being sufficient for home consumption, leaves a large quantity for export to the East.

Southerly still, lies San Diego County, with its 14,969 square miles,— a larger area than any of the New England States except Maine, and nearly twice the size of Massachusetts, — the southernmost county of California, adjoining Mexico. The city of San Diego, situated upon its southern seacoast, with the finest harbor south of San Francisco Bay, is the oldest of the California mission towns, the first of the mission churches having been planted there in 1769, and the "pueblo" organized in 1835; but, like Los Angeles and other Southern California towns, its present importance is wholly of recent growth. In fact, the San Diego of to-day is five miles distant from the original site. The development of this region followed the building of the California Southern Railroad, and the number of inhabitants is now estimated at from twelve thousand

to fifteen thousand. In 1880 the accredited population was 2,637. With a remarkably fine climate, unsurpassed on the whole globe for equability and salubrity, it is claimed, added to its other advantages, San Diego is naturally a favorite place of resort for Eastern visitors. The fruits of the temperate zone and the tropics here grow side by side, and the yield both of vegetables and fruits is immense. Many new towns have sprung into existence along the coast and around San Diego Bay.



A CALIFORNIAN LANDSCAPE.

The harbor of San Diego is formed by the peninsula of Coronado, which shuts off its peaceful waters from the rolling sea beyond, allowing only a channel some four hundred yards wide for the flow of the tide and the passage of vessels. Where this peninsula joins the mainland at the head, or north end, of the Bay of San Diego, it is a tract of some seven hundred acres broad, and fertile as any part of the mainland, now known as Coronado Heights. This narrows rapidly to a mere sand-spit, from fifteen to twenty feet above high tide, and some three hundred feet wide, and five or six miles long. Then rising again, it widens suddenly into a high, broad tract of some twelve hundred acres, about a mile and a half wide, and a mile and a quarter long. Then the inner shore-line runs back seaward to another sand-spit some three hundred yards long, and from there directly out into the bay again, forming another broad and beautiful tract of some fifteen hundred acres, which forms the south side of the main entrance to the harbor; leaving the two tracts almost separated by a small bay about a mile and a half long by nearly one-fourth of a mile wide. This larger

tract, beside the entrance to the harbor, is in all respects the best of the three; but the middle one of twelve hundred acres has anticipated it in attracting settlement because it is directly opposite the city of San Diego.

Just beyond the surf, that in long curling lines of white and green rolls for miles away on either hand, the seal lifts his shiny head into the bright sunlight, the porpoise rolls in glistening curves above the blue water, and the whale often shows his back above the deep, or marks his course by a column of spray. Flocks of pelicans ride like ships at anchor upon the smooth back of some long swell, or wing their way solemnly above it. Mergansers, divers, and ducks float upon the silent tide, while the seagull and tern wander about through the sunlight above.

In the south-west, far beyond where the osprey and the frigate-bird are trying to rival one another's graceful curves in air, the bold, rocky group of the Coronado Islands rises in sharp outlines hundreds of feet above the ocean's smiling face. Up the peninsula, far over the winding lines of curling water, the table-lands of Mexico rise blue and hazy with distance, with lofty mountain-peaks standing in all directions above them, till lost in the southern horizon. More to the east, but close at hand, the sharp-topped San Ysidro and San Miguel look down upon the long, smooth slopes that roll toward San Diego Bay; and beyond them tower great cliffs of old gray granite, which grow rosy when the sinking sun has left the land below, or great chaparral-clad hills, which grow bluer as the light departs.

Fifty miles away, the pine-clad head of Cuyamaca lies nearly seven thousand feet in the eastern sky, with long blue ridges running miles away on either side. Miles beyond the rugged dome of El Cajon, the sky rests lightly on the broad timbered shoulders of the great Volcan, while more to the left, the long golden slopes and dark blue cañons of Polomar contrast curiously with the snowy crowns of San Jacinto and San Bernardino, which glisten two miles high in the northern sky a hundred miles away.

Scattered among these greater peaks are mountains by the score, higher than the highest of the Adirondacks, or Alleghanies, yet here so numerous as to be unknown and unnamed, mountains rugged or soft, sharp-topped or broad, mountains yellow, gray, red, or blue; a vast array of cliffs, and domes, and ridges, seeming afloat in the golden haze in which the dreamy land is so constantly steeped — a scene whose strangely contrasting spirit

almost makes the gazer forget that he is standing in the midst of a rush of invading civilization and progress.

Descending to the lower tier of the great gallery, the eye rests upon a far different set of pictures. Still and smooth as some wood-embowered lake lies San Diego Bay. At its upper end, South San Diego and Coronado Heights loom in all manner of fantastic shapes through the mirage caused by miles of smooth water. On the eastern shore lie the long,

ON THE ROAD TO SAN DIEGO.

even slopes of Chula Vista, where water is now about to release thousands of beautiful acres from the desert fetters of ages; where the smoke of the steam-motor already rises from a dozen points of the compass; and where, in anticipation of the water, fine houses are already building on the lately bare plain. There the land swells upward to the highlands, where the white houses of National City look down from among the green of the orange, lemon, and olive groves, over the machine shops and railroad buildings that seem to rest upon the very face of the bay. Along the few miles of distance that for years held National City and San Diego apart in

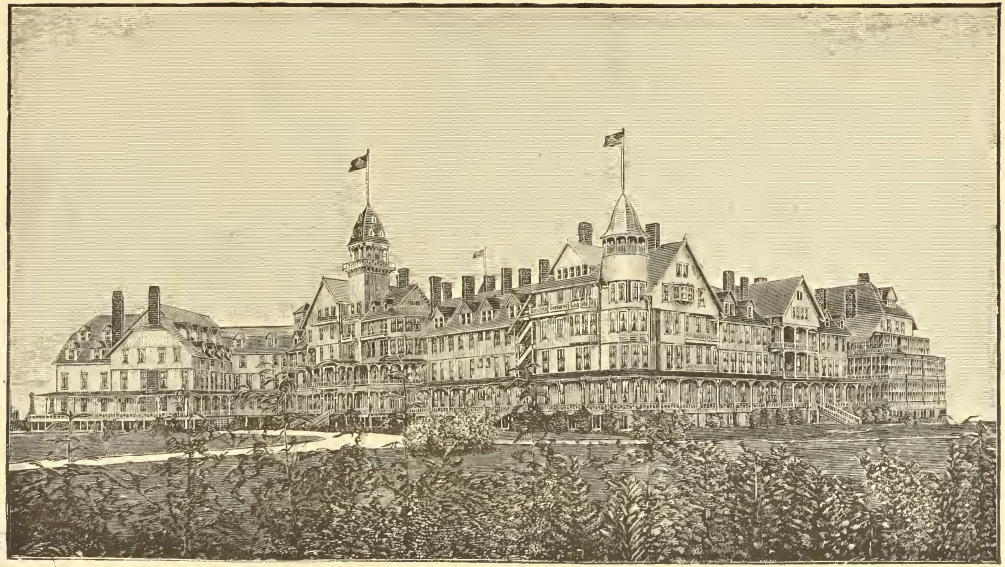
silly rivalry, the lines of houses stretching out both ways are fast closing the gap between them, and fine residences springing from the high table-lands beyond are hastening the union.

Directly opposite the centre of the enclosing peninsula, San Diego proper climbs the mainland slope from the water in long lines of business blocks and handsome houses, mounting one above the other, in tier after tier, for over a mile, till lost to sight over the brow of the highlands beyond. Two miles on either side its wings reach out up the slopes in the same manner, until fancy needs little aid to look forward to the time when they will overspread the whole eastern side of the bay. A remarkable city, upon which no one can look without wonder and admiration. Certainly no other city in the world has ever grown from twenty-five hundred to twenty-five thousand people in two years with such a kind of growth as this has, with such a mass of substantial buildings and improvements, built with such an expenditure of hard cash, brought in by such a host of wealthy people, and people so well pleased with their new home. Yet it is growing to-day faster than ever, so fast that the wisest are no longer able to measure its progress.

At the north-west end of San Diego Bay, Old San Diego, the oldest town in California, is awaking from the sleep of years; and a few miles beyond it one can catch a glimpse of False Bay, on whose shores the hand of improvement is already at work upon large and daring enterprises. Then the view is suddenly cut off by the long, high promontory known as Point Loma, which forms the western boundary of the bay. Four hundred and sixty feet above the tide the light-house looks down upon the channel from the sharp point that runs out into the sea. On its slopes toward the bay lie La Playa and Roseville, with long terraces rising above them, from which thousands of houses will some day look down upon the whole sweep of the bay.

On the Coronado peninsula, in the central tract opposite San Diego, mentioned above, the new town of Coronado has sprung up almost in a night, — the most remarkable growth of all this amazing period about San Diego Bay, and not to be passed by without more mention than any other.

A small tract of land, which, but eighteen months ago, was covered with brush, and tenanted only by the coyote, wildcat, and hare, upon



HOTEL DEL CORONADO.

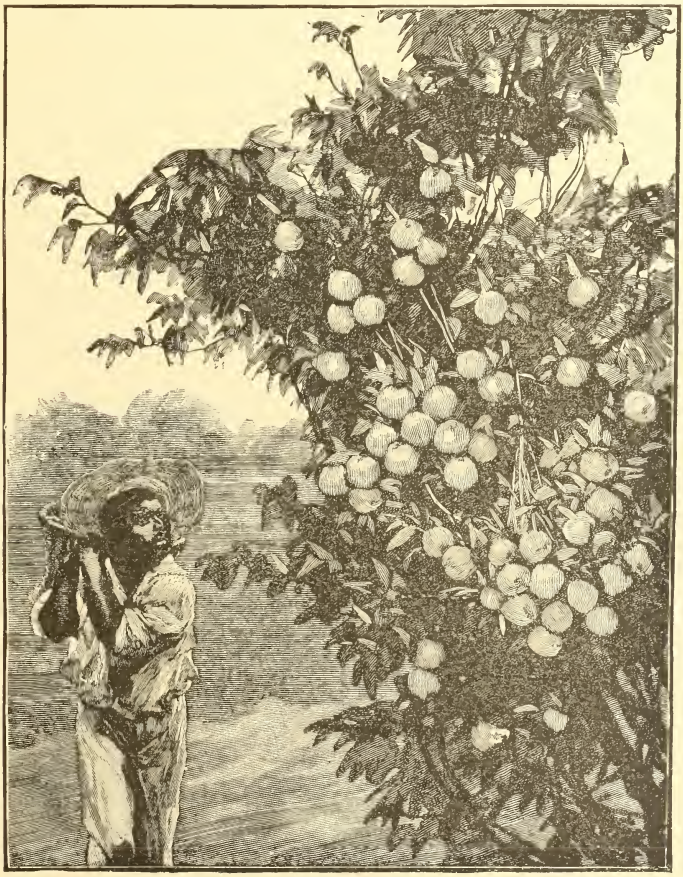
which half a million of dollars were spent in improvements, before a lot was offered for sale, of which less than one-fifth has, within a year, been sold for two million six hundred and fifty thousand dollars, over one million of this re-invested in still further improvements, — and this, too, in

A BUNCH OF NATIVE GRAPES.

a remote corner of one of the least known counties in California — is certainly an extraordinary phenomenon, even in a country and epoch of extraordinary growth. It requires something more solid than the brass band and free lunch, that in Southern California have lately shown such

a marvellous power over the human heart, to achieve such results as already stand completed on this strip of land. The town site was originally surveyed into some five thousand lots, with parks, avenues, and boulevards of grand proportions. A steam ferry to San Diego, a steam dummy road across to the seashore, bath-houses, a large water-pipe across the bay, and pipes in every street, a complete system of glazed pipe sewers, electric lights, an extensive lumber-yard, planing-mills, and machine-shops, wharves, and various other improvements, and finally, the great Hotel Del Coronado, followed in such rapid succession that the business activity now actually almost eclipses that of the fast-growing city across the bay. The parks and nurseries were planted with every variety of rare tropical vegetation that can be grown in this latitude; and the avenues were lined with orange, cypress, palm, and other evergreen trees, with shrubs and flowers between. All this was done without waiting for settlement, or even for sales, and on a scale apparently of the greatest extravagance. It is doubtful if anything of the kind has ever before been done in advance of any settlement: but the event justified the audacity of confidence displayed by the founders of the town. It is easy to see that confidence rested upon the unique fitness of the spot to the purposes of a watering-place, and not simply upon its attractions to home-seekers. Accordingly, the great Hotel Del Coronado, perhaps the largest hotel in the world, has been an objective point in all these lavish improvements. It was planned, not only to supply an attractive resting-place for weary tourists, but also and specially to tempt that class who travel solely to enjoy hotels, and whose abiding places in every country are its hotels. It covers four and a half acres of ground, and its floors require seventeen acres of carpet; two thousand feet of broad porches surround its lower floor, and several hundred feet of these are provided with glass enclosures, movable by a slight touch, where the most whimsical sojourner can sit with the rolling surf beneath his feet, and regulate the breeze and sunshine as he pleases. This is but one example of the manner in which the tastes and whims of luxurious travellers have been planned for. For those who like rain-water to drink, a cistern holding half a million gallons has been built; an inner court, entirely enclosed on the four sides, two hundred and fifty feet long, by one hundred and fifty wide, filled with tropical plants below and sunshine from above, has been provided for those who find it

too far to stroll outside; ladies' billiard-rooms and ladies' bowling-alleys are built separate from those for gentlemen; while an opera-house holding one thousand people forms one of the most beautiful parts of the building. Every nook and corner of the whole is lighted with electricity from five dynamos, run by an engine in a fire-proof house away from the main



CALIFORNIAN VEGETATION.

building, and connected by a tunnel underneath. The same engine will also run a large ice machine and laundry. Every room opens upon a parlor, and every parlor upon the inner court as well as upon the outside. The system of fire escapes is perfect, but there is little probability of their ever being used, for in addition to a special fire patrol, water-pipes

and hose are in place every few yards, and an automatic electric system sets the huge engine to pumping salt water from the sea, whenever the temperature rises above one hundred and fifty degrees in any part of the building, and all portions may be quickly flooded if the ordinary water-pipes fail to check a fire at the beginning. The hotel will accommodate over a thousand guests, and will cost over a million dollars.

The soil of the whole peninsula, except upon the narrow sand-spit, is a dark red alluvium, very fertile and retentive of moisture, and so free from clay that it may be cultivated in all stages of dampness. Mud will be unknown, and there will be scarcely a limit to one's ambition to make a pretty home, surrounded with rare flowers and trees. The streets are all to be paved with bituminous rock, with open places on the sides for trees and flowers; a steam-dummy road is fast encircling the whole peninsula, on which for a trifle one may ride twenty-four miles, and see the whole bay and all its shores, as well as miles of surf, while one may drive in a carriage on the beach and over good roads almost as far. An ostrich farm has been located here; and a famous Eastern museum has been induced to move hither.

All this seems an exaggeration of enterprise; but the founders of the town and hotel have grounds for their confidence. San Diego, with twenty-five thousand people to-day, will soon be the second city on the Pacific Coast, and in a few years will nearly equal the present size of San Francisco. The great Santa Fé railroad system is determined to make a city of it, and the Southern Pacific will soon follow it up. The vast area of fine land around the bay, the rapid settling up of the interior valleys and table-lands of the county, and above all, the rapid development by huge dams and long aqueducts of the great water supplies of the high mountains, would alone make a city of it, and insure Coronado as a summer resort and place of suburban residence. But even if there were no city across the bay, it could scarcely fail to be a famous watering-place. San Diego has the best climate on this coast, which, of course, means the best in the United States. The situation of Coronado gives it all the advantages of San Diego, with cooler days in summer and warmer nights in winter. Summers and winters are so nearly alike that one is puzzled to choose between them. There is no summer day on which the mercury passes eighty degrees Fahrenheit, yet few in winter when it does not reach

"TIMBER-FILLED CAÑON"

seventy. The surf, that beneath the bright sky and gentle breeze rolls so lazily in long miles of snowy foam, changes its temperature scarcely four degrees from summer to winter. This makes sea-bathing almost an every-day possibility; and one may bathe either in the surf or the still waters of the bay; the two being one hundred yards apart at the bath-houses. Upon the higher parts of the peninsula even hoar-frost is unknown, and on the low parts is seen only once or twice in occasional years and then is gone with the sunrise. As frost can occur in this section only on perfectly clear nights, the following day is sure to be bright and

GEMS OF THE SIERRAS.

warm. At this season, too, the sea breeze has fallen away to a mere breath of air; so that the greater part of the winter day differs slightly in temperature from the average summer day. Grass, trees, and flowers, and even the tropical plants grow in mid-winter, with a vigor unknown upon most of the low parts of the mainland where the temperature falls too much by night. We find here what can be found in few, if any, other parts of the world, a place to escape both the cold of winter and the heat of summer, where the winter sea, like the winter land, is a plaything instead of a terror. And all this in the centre of a vast amphitheatre, where great mountains sit as silent spectators looking down upon the mightiest of oceans.

It is easy to imagine what the surroundings of this rare bay will be when the great flume, now rapidly building from the heavy rain-belt of the high mountains, pours its waters over the hills, now brown and bare the long summer through. The whole will be one city, one in purpose, one in pride, the city of San Diego Bay, with Coronado for a central point from whence the finest view of the whole may be had. There will be no other such city in America as that of San Diego Bay, and no other such watering-place in the world as her peninsula. For those who have turned the last quarter in the race of life, as well as for those worsted in the struggle with barbarous climate, the world has nowhere else such peace and comfort, such freedom from friction, such light and easy and safe ways of amusement. Other places may have as good amusement, but over them scowls an unfriendly sky. The world may elsewhere have as good climates, but over them waves no starry flag.

There are few places that afford such safe, yet certain sailing, as San Diego Bay and its surrounding ocean. No squalls ruffle its quiet face, and the heaviest breezes make no waves upon its bar. No danger lurks in the long undulations outside, and boats unfit for other oceans may ride them with perfect safety. There one may see the light shine from the brilliant Spanish mackerel as he lays himself on his side beneath the green water, and, with frantic rushes from larboard to starboard, tries to break from the hook. There one may burn one's fingers trying to hold the Jew-fish, or tire one's arms with constant hauling of the silvery barraconda; or, anchoring in the kelp, where one can see fathoms into the clear depths, draw out a varied string of strange fish.

When the stranger looks beyond the heights of San Diego at the strange medley of sharp peaks and long chains of hills that seem struggling for room in the eastern sky, he is little apt to imagine that among them lie hundreds of thousands of acres of as fine land as any in California; that fine valleys and table-lands abounding in game lie within a short drive. Unless familiar with Southern California he sees little suggestive of timber-filled cañons, of running brooks, or gushing springs, or anything like the haunts of game. Yet the deer used to abound on every hill; and every cañon and valley resounded with the roaring wings of such flocks of quail as one never before imagined. The hare fled in every direction from one's path; the wild duck sunned himself in many

a little pond, or slough; and the goose and sand-hill crane stood in long rows upon many a plain and table-land. Though much of the wild beauty of those days has faded, much still remains for those who know where to seek it; while the ease and comfort of hunting and camping beneath the clear skies go far to compensate for whatever else may be wanting.

AROUND MOUNT SHASTA.

TO SHASTA'S FEET.

It was a hot, breathless day in July that I leaned out from the platform as far as I could to look up the long stretch of valley bronzed and shimmering under a tropic sun, to see Shasta's "Great White Throne," standing straight to the north more than two hundred miles away—a monument of snow and ice, terrible in its grandeur and isolation. We had been panting for breath the last two hours, for the heat was intense, and the car crowded with excursionists. I shall never forget the strange effect of this arctic vision in the midst of tropical surroundings. As my fascinated gaze rested on the central figure of Mount Shasta, a sense of supernatural influence seemed to emanate from its pallid surface, and so possessed my imagination that I was never able to divest myself of the feeling as long as I remained within the sweep of its comprehensive brow. I understood then why the Indians held it in reverence and never desecrated its sacred solitude by sound of warfare or hunter's chase.

My revery was cut short by the brakeman calling out "Cottonwood,"

and gathering up our satchels we hurried out, glad of the opportunity to shake off the dust and generally refresh ourselves at the hotel.

After an early supper, some friends suggested that we should ride out with them, as it was then the pleasantest part of the day. We gladly acquiesced, and soon were driving over the finest kind of roads, behind a dashing pair of bays. The little town is charmingly situated, within a half mile of Cottonwood Creek, which hunts the Sacramento River through a wide valley, now russet with unharvested fields, and dotted irregularly with great oaks that made rings of cooling shade in the midst of the yellow grain. The sun for a few moments seemed to glare more fiercely at the prospect of his enforced retreat behind the head of Yallo

MOUNT SHASTA.

Balley. Later, his brilliant blaze was slowly displaced by faint shadows that purpled Shasta's roseate cone and Lassen's frosty buttes, and then spread down the mountains' sides, and took up their march across the plain.

"We must show you the ruins of Major Pearson B. Reading's homestead. That was a man to know!" And the Doctor's voice indicated that he had once enjoyed the privilege, and felt all an old pioneer's pride and pleasure in recalling the circumstance. "The Major was the first white settler in Shasta County. It was in '45 that he built the old homestead over there near the junction of Cottonwood Creek with the Sacramento River. Many a houseless immigrant remembers with gratitude the cheer he received within its hospitable walls. You will find all over the State

those who treasure up as cherished mementos his helpful words and deeds. The Major owned all this country once; for the original Reading grant embraced more than twenty-six thousand acres of choice, well-watered land. You see it now all cut up into farms and orchards; but then it was one unbroken pasture for his immense herds of cattle. I remember he told me that in one day he had marked and branded seven hundred calves. Here is the old corral," stopping the horses before a dilapidated adobe wall that had received modern improvements at various stages of decay. "Once I arrived here just in time to see Joaquin Miller, then but a stripling, mounted on a spirited horse, his long auburn hair waving like corn-silk in the wind, and his right arm dexterously swinging a riata, which, a moment later, had fastened its coils around the horns of a bellowing young bullock. I never saw Sam Neal do a neater piece of lassoing. The animal was the pick of the herd, and promised by the Major as a feast to the Indians who accompanied the poet."

We found the Doctor's reminiscences vastly entertaining. Beyond the corrals were tumbling walls of sun-dried brick of Indian manufacture. Scarcely a vestige remained of the old-time comforts that had once made the Reading homestead famous for miles around. A few gnarled apple-trees hooked their hungry branches in the falling roof. Below, in a secluded hollow, some better trees were loaded with ripening fruit, and still farther off we could hear the meeting of the three rivers through the pleasant rustle of the cottonwood trees on their border, and catch a silvery gleam of their waters through the branches.

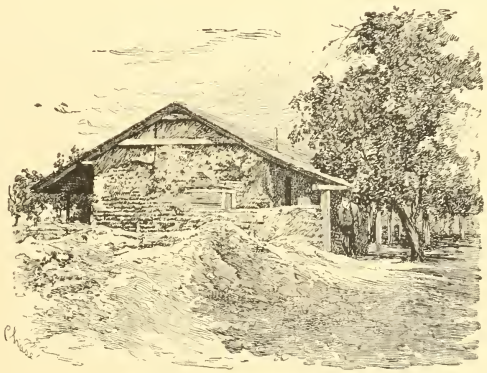
"My old friend is buried near here," continued the Doctor softly. "I will drive over to his grave if you would like to see it." And as we urged him to do so, he turned the horses off the road across a blackened stubble-field, where a recent fire had robbed the harvesters of thousands of acres of grain.

We were directly opposite "Bloody Island," which is formed by Battle Creek on one side, and the Sacramento River on the other. On this little island, some forty years ago, General Fremont had his well-remembered conflict with a tribe of Diggers, many of whom were slain, and the rest forced to sign a treaty with the whites. Overlooking this picturesque spot, some half a mile above the rivers, is a small knoll covered with manzanita and scrub oak. Under these are two graves marked by rude boards, on

each of which is inscribed the name of Pearson B. Reading. Father and son take their last sleep side by side.

Before parting for the night, we planned a trip to Anderson and Happy Valley on the morrow.

The morning sun dropped down a flaming day that rivalled the one before in unmitigated heat. By a little after six we were on the road. A shining haze enveloped the mountains and spread its golden net across the glowing valley. A meadow lark arose and flung on the air his rich, sweet notes, while a flock of chattering blackbirds, catching the morning's colors on their wings, wheeled close to the heavy-headed wheat that grew by the wayside. All the country, from Cottonwood to Anderson, Redding, and Millville, is the very best farming land in the county. To one who has served a seven years' apprenticeship in Southern California, the beautiful rivers and streams that here meet the eye are a source of never-ending delight. A ride of six miles brought us to the suburbs of Anderson, a railroad town some five years old, lying in the lap of the great agricultural valley just alluded to. We passed some fine farms and orchards; the peach and prune trees we had never seen excelled in any part of the State.

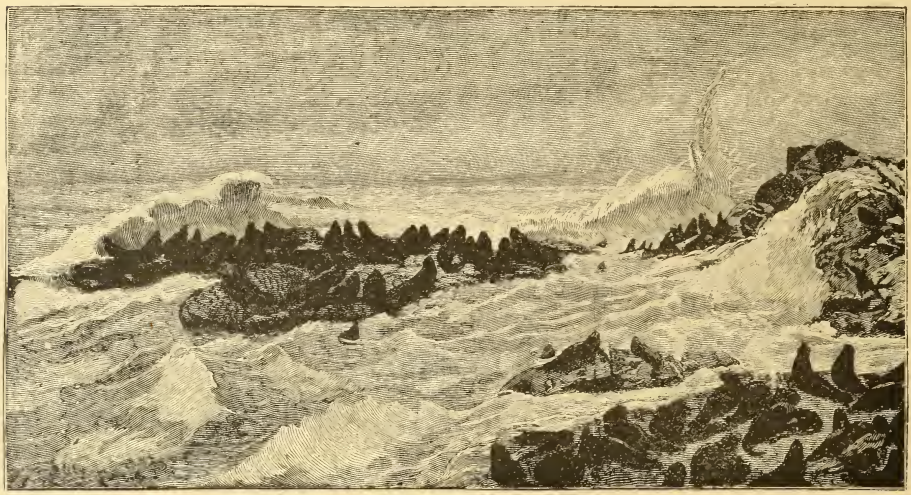


THE OLD READING HOMESTEAD.

"Don't miss the bridge across the Sacramento," cried the Doctor. "There it is: length, thirteen hundred feet; three main spans, one hundred and fifty-five feet each; cost, twenty-seven thousand dollars," he quoted glibly. "Hold fast to the figures, my dear, as you value your reception among my Anderson friends. I can tell you they are proud of it, and it certainly is one of the finest in Northern California. It didn't bridge over their little quarrel with Millville, but materially widened the breach by robbing the latter town of a part of her trade. We'll drive over it, and give you a bit of a river view that is an exquisite painting in itself."

After lunch we started for Happy Valley in company with its beloved

patriarch, of whom I had heard enough to interest me greatly. He was a man past the prime of life, but was in no wise infirm or weakened by age. It might have been some peculiar gift of mind, or spirit, rather than of the body, that gave one the impression that he had at his command great powers of strength and endurance. We drew him on to speak of himself and others of the "United Brethren," who had followed him here a few years before, and now formed the entire settlement throughout the six miles of valley that we traversed to reach his home. He needed not to assure us of their thrift and enterprise, for the well-cultivated farms, neat



SEAL POINT, SAN FRANCISCO BAY.

cottages and gardens, and frequent schoolhouses, had a language of their own.

"We try to subordinate our interests to that of the Church, making each one responsible for the well-being of its members. Our society was established in the United States in 1755, under the leadership of Rev. Will Ottesbein, a German of the Reformed Church. We are opposed to secret orders, slavery, and the manufacture and sale of spirituous liquors. We will not sell a foot of land to a man who has not temperance principles. Of the one hundred voters in our valley, there are only two ever known to taste a drop of liquor."

All this and much more our kindly host related to us while we walked

with him through his orchard groves and ate of his perfect fruits. Many of the trees were bent to the earth with their generous burden of apricots, pears, and peaches. There were nectarine, plum, apple, and walnut trees, and rows of old-fashioned chestnuts throwing out their symmetrical limbs under a luxuriant drapery of soft leaves. We appreciated the feeling of pride that the owner of this beautiful orchard displayed in showing us the result of his five years' labor. He had fine ditches running through the place, but did not believe in irrigating his trees, and only ran the water on the blackberry bushes, which were loaded with the finest clusters of the Lawton and Wilson varieties. His vineyard covered fifty acres, and he told us that his raisin grapes last year, under the analysis of Professor Hilgard, were found to contain nearly five per cent more sugar than those produced elsewhere in California. It is only in the last few years that the least attention has been paid to the agricultural and horticultural resources of this county, which stood for so many years a very Solomon "that passed all the kings of the earth in riches," and whose presents to the people were "vessels of gold and silver."

"A new era has come to this country," continued the old gentleman, in his wise, thoughtful manner. "After the exhaustion of the gravel diggings — wonderfully rich while they lasted — it was generally believed that Shasta's sun had set. Capital was withdrawn, and the placer mines gave but a desultory employment to the few miners remaining. But the last few years have brought a reaction. The problem as to where the gold came from that fed the gulches was solved at last. Rich ledges were discovered, and rock claims taken up on the mountains, mills were erected to grind the quartz, and to-day, capital, united with scientific skill, has opened out as bright a prospect for Shasta's mines as she ever enjoyed in the past."

The conversation then drifted into questions of religious import, which, we could see, were of greater interest to him. The man's life was broader than his creed, and no one could spend a few hours in his company without being the truer soul for the experience. It was with a painful shock, a few days later, that I heard of his sudden death from heart disease. I can still recall his fervent "God bless you!" and feel the touch of his cordial hand in farewell.

We remained at Anderson one night — and such a glorious summer

night as it was! It brought a cooler breath than was felt all day, and we sat on the balcony serenely enjoying ourselves under the eternal calm of the sky, now thickly jewelled with innumerable stars. Later on a full moon hung its silver globe low in the horizon, dropping lights and shadows on the distant hills. The band was practising on the farther end of the balcony for to-morrow's festivities. They were all young fellows, scarcely out of boyhood, and, I could see, did their best, and we took pleasure in letting them know we thought they played well. They were evidently proud and pleased, and left us with smiling faces.

Before the morning sun had time to climb the mountains, we were awakened by the patriotic youth of the town ushering in the natal day of our independence by firing off cannon-crackers under our windows. It was

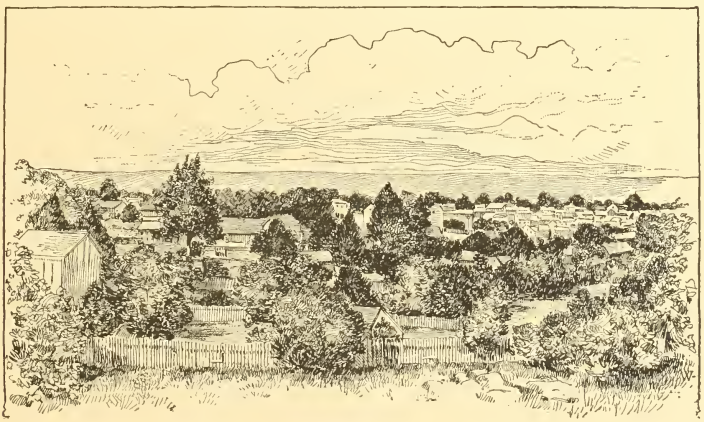
ANDERSON.

not yet four o'clock. By ten we were in the grove just outside the town, where some twelve or fifteen hundred people were assembled to hear the regulation programme performed. There was the usual inattention on the part of the crowd during the reading of the "Declaration," and a corresponding disposition to gossip and shift positions while the oration was delivered with great fervor and eloquence by a bright young lawyer, who, it was circulated in loud whispers, "would be heard from before long." I thought it more than likely he meant to be heard from then, for he thundered away with true Irish enthusiasm until an old farmer in front was quite beside himself with patriotism, and, seizing a flag from a small boy, waved it wildly toward the speaker, while we all joined in his loud hurrah.

At four o'clock in the afternoon we took the train for Redding, and arrived there before five. We found the thermometer standing 110° in the shade. It was the hottest spell of the season.

In the next week I took many rides around Redding, which is beautifully located on rolling table-lands close to the Sacramento, but more than seventy feet above the stream. It is the liveliest town in Northern California, the railroad having made it the central point of all the surrounding counties. New buildings are going up on every hand, vineyards and orchards are being planted on her hundred hill-slopes, and capitalists are investing largely within her boundaries. She was first named after Major P. B. Reading; but alas for the fickleness of human nature, this honor was transferred to a more recent benefactor, Mr. B. B. Redding, who made her scenery famous by his gifted pen.

One cannot imagine more picturesque sites for homes than are found



REDDING.

in the vicinity of this town. Along the bottom lands of the Sacramento River there is a rich, alluvial loam, productive of the finest fruits and gardens, while the red soil of the hills presents features peculiarly advantageous to the raising of grapes and olives. "And why shouldn't we raise our own olives?" said the master of Linda Vista, with enthusiasm. "I shall plant out acres of trees this fall, and prove this country could rival Spain in the culture of this valuable fruit. Think what a revenue is open to California, which is the only State in the Union where olives can be successfully grown! Why, Spain, in her present low condition of agriculture, produces nearly three hundred million dollars worth of oil annually. There is no tree hardier than the olive, or that is less troubled with disease or insect pests."

We were standing on the highest ridge that intersects his place, our faces turned toward Redding, which lay at our feet, almost hidden by her oaks. Beyond the town ran the red wall of the river, which made a sharp curve around its eastern and northern slopes, and was fringed with chaparral, whose light green foliage shaded off into the darker tints of the trees. It was nearly sunset. The day had been sultry — an unusual condition, for the summers here are rarely oppressive. All the afternoon,

A GOOD DAY FOR BEARS — MOUNT SHASTA.

under the drifts of fleecy clouds that trailed across the heavens, invisible billows of heat wrought electrically on the atmosphere. Now the sky was filled with grotesque figures, flaunting fiery garments before the face of the sun, whose vermilion disk touched Old Baldy's naked brow. A noble picture was spread around us. The eye rejoiced in its freedom, and roved at will over the wooded valley, through whose reach of verdant meadow on the south, the river ever and anon held up its crystal mirror. To our left, and straight before us and behind, the circling mountains struggled to

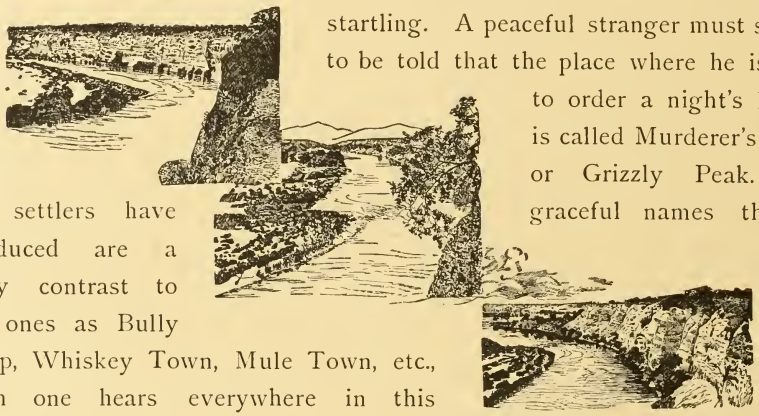
rise above the vast expanse of timber crowding up their sides, until they shot up granite points into the muttering clouds that dragged their sullen lengths across the horizon. And beyond the other peaks, and higher than the storm-clouds, Shasta raised his kingly head — a silent oracle that spoke above the thunder's tone and whose omnipresent eye pierced deeper than the lightning's blazing shaft. The clouds moved hurriedly across the sky, consolidating in dark masses, and getting into position as though for a battle. The wind rose and shook the claret-colored boughs of the manzanita until they showered their scarlet berries thick on the ground. A peal of thunder, followed by a serpentine flash of lightning and a few drops of rain, warned us to seek shelter in a grove near by. We were barely under cover before a quick shower fell that scarcely penetrated the roof of our leafy retreat. We watched the storm roll toward the north, covering the mountains there with an impenetrable gloom. We had escaped with one refreshing shower. The sun shot out a flood of golden arrows from Old Baldy's burnished top. A radiant light illumined earth and sky, and there was an abrupt and vociferous awakening of nature, rain-bathed and vigorous. The world seemed newly created.

HUNTER'S RIDGE.

We drove off on a side road for several miles that brought us to a pleasant country home, where we spent a couple of hours wandering around the romantic old orchard and garden. The latter reached to the river, and was irrigated therefrom by means of a revolving wheel that carried the water up into cedar troughs. The apple and pear trees here are the largest I ever saw. One of the former bore as high as forty bushels of fine large russets in one season; while they told us they had picked fifty bushels of pears from a single tree, not counting what fell on the ground. The Sacramento River is full of trout, and our hostess and her three sons caught one hundred catfish the day before within a few rods of the house. These people did not seem in danger of starving, even if they never looked beyond their own farm for supplies.

It was nearly nine o'clock in the evening, and I had an all-night's ride before me. The prospect was not a cheering one, and somehow the proposed railroad to Fall River seemed to me just then the one thing of all others most to be desired. I parted from my new friends with sincere regret that my stay was not longer. Who has not felt for hours after a farewell the warmth and stimulus of hands that last clasped his?

We left Millville behind, nestling between her mountain streams, which made a musical murmur as we crossed the bridge over one of the Cow Creeks. There being four of them, the traveller becomes hopelessly confused in trying to distinguish between North and South Cow Creeks, and Little Cow Creek, and Cow Creek proper. Usually the names around Shasta have a distinctiveness of their own that is startling. A peaceful stranger must shudder to be told that the place where he is about to order a night's lodging is called Murderer's Gulch, or Grizzly Peak. The graceful names that the new settlers have introduced are a happy contrast to such ones as Bully Choop, Whiskey Town, Mule Town, etc., which one hears everywhere in this country.



BLUFFS ON THE SACRAMENTO RIVER, NEAR REDDING.

The average stage-driver merits one's liveliest gratitude. He is the essence of good nature and thoughtfulness. His stories, tinctured by his own quaint personality, ward off the drowsy wings of sleep, and materially shorten the long hours of the night. He stops by wayside springs in the hot valleys to give you an icy drink out of the ubiquitous oyster-can that never fails to hang on a stout twig alongside. And when you have penetrated the northern mountains, and feel the frosty air blowing down from snowy fields, he insists on wrapping you in his greatcoat to shut out the chilling blast. To the households scattered along his route he is the never-failing bearer of letters and newspapers, and all sorts of commodities, from a sack of flour to a spool of cotton. His interest in their individual needs is universal, and the memory he displays is simply

phenomenal. He has travelled up and down among them for many years, and calls each one by his or her given name, and in return he is treated by them as one of the family. He is sympathetic and friendly without impertinence, and in spite of your aching head and disjointed bones, you feel an undercurrent of regret that civilization will soon do away with these fresh and original characters.

The stunted and meagre growth of trees had entirely disappeared, and we rode for hours under the superb dim ceilings of giant sugar and yellow pines, black firs, cedar and cypress trees, each one seemingly endowed with but the one impulse — to rise above all else and be alone with God. On

MILLVILLE.

every side they set their serried stems, rank above rank, until they covered the highest summits with a moving mass of dense green plumes. The tender effulgence of the moon but deepened the mystery of their solitude. The night wind brushed their steepled tops, and all their mountain saps stirred with a thrill that wrung from out their pipes a mournful chant that pierced the soul.

Oh, the marvellous beauty of the birth of a new day in such surroundings! The paling moon sank down behind the hills, and one by one the clustering constellations faded from the ashen sky. A thin gray mantle settled on the earth, its edges silvered in the east by the advancing sun. The mountains frowned upon his coming, and raised their mighty barricades against his painted darts, but, breaking through their bristling lines,

he flooded the cañons with his golden banners. There was an instant sense of scattered dews and twittering bird-notes, and all the wealth of tangled wildwood on the creek was prodigal of harmony.

We breakfasted at Holcomb's, a rambling country home among the scented meadows of Cedar Creek. In this higher latitude, spring still decked the grassy banks with joyous groups of Indian pinks and columbines, while beds of delicate bluebells trembled on their slender stalks. From Cedar to Montgomery and Hatchet Creeks, in fact, the entire way to Burney Valley, there is one delightful panorama of mountains, forests, and streams, the latter dropping tinkling footsteps along the meadows. Under the pines and down the cool ravines there is a luxuriant growth of underbrush of graceful dogwood with its starry blossoms, hedges of Eastern maple, and alders overhanging deep blue pools, flashed through and through by myriad mountain trout. The redbud showed its crimson pods above the rank growth of ferns and thimble-berries trailing underneath. Our wheels rolled noiselessly over the russet mats of pine needles, while heaps of amber cones rattled under the gray squirrel's nimble feet. The great trunks of the pines were hung with yellow mosses and tattooed with holes that little carpenter, the woodpecker, had drilled, in which to hide his precious acorn. The sun was everywhere, and still the solemn music of the pines, like Ossian's, "was pleasant, but mournful to the soul."

For a mile or two we drove over what the driver called a "corduroy road," which is made of saplings fitted close together. It is worse than rocks, and we were jerked and wrenched to such a degree that we longed to put up for repairs.

Burney town is but a small village charmingly located in the lovely valley bearing the same name. The stately pines run down her circling mountains to the verge of the long meadows of timothy and red-top clover. The dark breast of Burney Butte still wore a snowy vest that sparkled radiantly under the sun's warm beams.

This place was called after a young man named Samuel Burney, who was killed by the Indians here some thirty years ago. His companion buried him a mile from the present site of the town, and marked the spot by "blazing" a towering pine beside the grave.

The next morning we took an early start for Burney Falls. The road

GIANT TREES OF CALIFORNIA.

was smooth as in a park, and ran through majestic groves of pine. Many of these had received the fatal girdle that means sure death, no matter how vigorous the tree. This is done by cutting around the trunk, robbing it of a circle of its bark. Already their highest plumes were turning brown. We passed several women going to the river with buckets in one hand and pistols in the other.

They are new-comers from the East, poor things! And nothing can convince them that the Indians here are perfectly harmless. They live in constant terror while their husbands are away at work.

The rivers throughout Northern California have an absurd way of playing hide-and-seek. They come up suddenly out of lava beds, and run for miles above ground, and then as quickly disappear into some unseen channel. Six miles from town, Burney Creek sinks to reappear three miles beyond, just above the falls.

There is room for lovely homes all through these beautiful mountain valleys. It is good farming land, and can be had at a low figure. Their greatest disadvantage is the distance from market. I could better appreciate the Professor's earnest desire for railroad connection with northeastern California, now that I visited this section and conversed with its people. Burney Valley can be irrigated by ditches run from her several streams. Like all these wild localities, she needs men of enterprise and means sufficient to invest a few dollars for the sake of future prosperity.

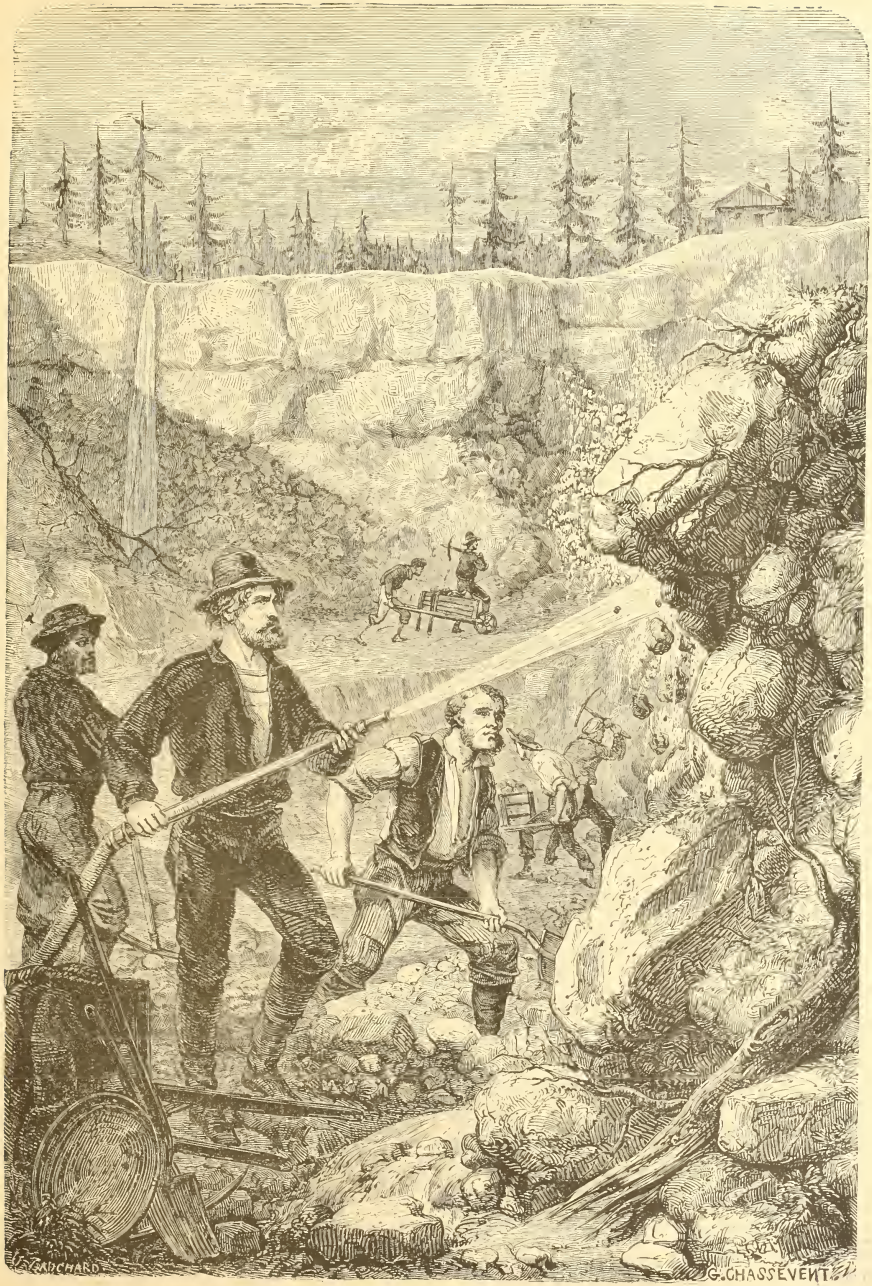
A mile this side of the falls there is a tiny lake on the lava ridge a few rods from the road. It is called Blue Lake, and is about one hundred and fifty yards long, and full of trout of a large variety. As the lake has no visible outlet, the fish must come from a subterranean passage. Here the stock for miles around come to water. We paused beside a mill on Burney Creek to watch the sharp-toothed saw slit through and through the white bole of a sugar pine that sweated drops of yellow resin. A little farther, and we heard the rushing of the falls. We could not see them from the road, but running down a beaten path, we broke upon the picture with a suddenness that took away my breath.

The exquisite beauty of these falls is indescribable by pen or brush. It is a perfect jewel in a perfect setting. They are not grand and terrifying like Niagara or Yosemite, but the imagination cannot suggest a single alteration in outline, combination, or color. The river subdivides

into two white streams that fall one hundred and twenty feet on either side of a jutting rock, which lifts its mimic turret into a bank of dripping

CROSSING THE MOUNTAINS.

ferns and flaming tiger lilies. The lava wall to left and right of these cataracts makes a crescent curve, and half way down the dry black rocks the water gushes out from eaves of plume-like filices, and runs a thou-



HYDRAULIC MINING.

sand shining ribbons over a solid background of bright green ferns and mosses. A myriad of rainbows float in the starry mists sent upward by the plunge of waters into the wide black pool below.

Some miles beyond the falls, from the brow of a hill, we looked down hundreds of feet on Crystal Lake, a glassy sheet of water more than a mile in length, now all ablaze with sunshine. We followed a steep road that led below to the mountains, green as English ones that poets sing of, that skirt the reed-edged waters to where a dairy stands, its low roofs trailed across by clinging hop-vines. Just here the lake leaps over stony steps a dozen feet in height, and pours its foaming floods into a rapid stream that hurries on to Hat Creek. These mimic falls span a hundred and fifty feet, and circle many a tiny isle of richest grass and flowers. The mistress of this dairy stands on her steps in leisure moments and feeds her fishes with curds. They crowd by hundreds, open-mouthed and eager. She takes advantage of their hunger, and drops a hook among them. She draws a prize every time, and throws it into a tank to be convenient for the frying-pan. That morning she had hooked twenty.

"And how do you catch them again?" I said, watching the pretty creatures dart to and fro in their narrow prison.

"That's just what I'll show you now, as I'm going to let you folks take them all home." And seizing a pole with an iron point on the end, this relentless woman speared her fish with every dash, flinging it out on the wet floor, where it wriggled and panted for a moment, and when it became quiet was carefully stowed away in a basket. The lake had plenty more, and the mistress never found any trouble catching all they could possibly use. There is an old man living here who makes a business of shipping trout to San Francisco.

We reached Burney after dark, and the next morning at ten I took the stage for Fall River. Our road still led through forests of pine. Ten miles beyond Burney we came to the salmon hatchery, on Hat Creek. This building has double the capacity of the United States hatchery on the McCloud River. It contains ninety boxes sixteen feet long, with eight hatching baskets to the box. It was estimated that four million young salmon could be turned out here every season, but there is some disappointment now expressed as to the success of the undertaking.

On the summit we caught our first view of Pitt River, roaring head-

long down one of the grandest cañons, in a mad succession of turbulent springs and leaps over huge boulders, heaps of logs, and sheer declivities of rocks. I never saw before so angry a torrent. Sometimes it cut a splendid channel through feathery weeds and willow boughs, and again it tore its furious course through chalky cliffs and dizzy steeps of lava rocks that propped the skies. Pausing not to rest in shaded pools, nor lingering to reflect the mass of ferns and flowers adroop from many a ledge, it rushes to the falls, and, bellowing like the sea, it takes a noble plunge of fifty feet that shakes the earth, and makes one cry aloud in sympathy. The scenery on every hand along this cañon is most sublime.

My companion was an aristocratic-looking Southern gentleman, whom the driver addressed as Mr. Syd, which I took to be a contraction of some longer name. He seemed well acquainted with all this country, and told me many things of interest.

"I shall never forget how I helped drive the logs down this river last June and July," he said, turning his expressive gray eyes toward the stream. "It is the noblest sport imaginable. We started from Big Bend, eighteen miles above Montgomery Creek. Here there is a chute a mile and a quarter in length, made of immense logs, down which they slide the others in fifty seconds. Sometimes they meet an obstruction, and shoot off on a level from three to four hundred feet, cutting off great trees as they whiz through the air. A man was killed by concussion of a log passing. He was fearfully mangled, and his boots torn off his feet. The river bank at the end of the chute is forty feet high, and the logs pitch off with tremendous velocity. An average drive for six bateaux is six thousand logs. There are the wagon boats for carrying provisions for the men, and the driving boats, which are smaller and more easily handled. Both kinds are pointed at bow and stern. We had more than forty men, most of whom travelled along shore so as to direct the logs to the centre of the current. One day I saw from the bank a bateau overturned that was being managed by a couple of Indians. Two boys, lads of ten and twelve, were in it also. The boys escaped on the logs, but the Indians were both hurled under the boiling water, one of them coming up a hundred feet away with the boat rope still between his teeth. These fellows are regular water-rats, and are good hands with the boats. There are many times when we are obliged to unload and carry the provisions along the

banks for a distance, letting the boats down the cascades with ropes. We often did not make more than a mile and a half a day. It is all dangerous, but there is no end of keen enjoyment. Sometimes the logs get to whirling around in a maelstrom until it gets choked, when they are forced out by the whirlpool. Again they are lodged on rocks, and then there is imminent peril of accident. The driving-boats get close to the lower side of the jam, and the men fasten their cantdogs to the key-log, and as soon as they are out of the way, those on shore haul with might and main until it is loosened, and the logs are again surging and tumbling in the current. It is a glorious freedom to ride recklessly over rapids, rocks, and whirlpools! You feel wildly exhilarated, as though you had quaffed rich bumpers of champagne." And the memory of his experience fired his eyes with liveliest emotion. "We went ninety miles this way before we drove the logs into the boom beside the Redding mill."

We had now reached a high point, which commanded a grand view of the Fall River plains. Here lay the little town in the embracing arms of the two rivers, whose waters meet within her lines. On every side we saw her grain fields stretching golden lengths, through which the rivers coiled like blue and silver serpents. Many homes are built within the curvings of these streams, which are crossed here and there with rustic bridges. The summers are delightful here, but the winters are colder than in any other part of the State. Snow remains on the ground, however, but a few days at a time. To most of our people, this part of California is almost an unknown region. Here are a number of large and fertile valleys, extending southward a distance of a hundred and fifty miles. Pitt River, now a sluggish stream, traverses this entire distance, and its numerous tributaries drain an equal number of smaller valleys. Altogether there must be about two thousand miles of level farming lands, with little timber, though the surrounding mountains will always furnish sufficient wood for fuel and building purposes. Through Fall River the wool teams travel from Oregon, and we frequently met the laboring mules dragging their dusty loads. One of the drivers told us his three wagons contained thirty-three thousand pounds. The day before he left Oregon, he said he had seen twenty-two thousand sheep. The expense of transporting such immense quantities of wool so many miles, to market, makes it seem probable that this country will soon be in a position to demand a railroad.

The house where I stayed at Fall River is built on an island just large enough to furnish a little garden around its porches. Fall River throws an arm around each side, and these people live in the eternal roar of her bright waters, tossing, foaming billows over a series of cascades that terminate in a fall of more than forty feet. Here the stormy current ploughs a radiant path across the dull waters of the Pitt. Above this junction, and overlooking the Falls, is a rock-girt promontory so situated as to give a perfect view of the finest features of the landscape.

"What a site for a summer resort!" I cried admiringly.

"Or a manufactory," my host quietly supplemented. "Perhaps the world does not contain the equal of their giant water-power, capable of running all the machinery on the Merrimac. This river never freezes over, and is not subject to heavy floods, as it passes through a lake near its head, which acts as a reservoir to hold the surplus water. This uniformity of flow is a great advantage, and will recommend itself to any one who is experienced in dealing with water-power."

The next day we rode around the valley, going as far as the great translucent pools that bubble up from the lava beds and are the source of Fall and Tule Rivers and Bear Creek. Beside this latter stream there are the same green English meadows I so much admired at Burney. Tule River and its large lake appeared to me the most transparent of any of the waters I had yet seen. The lake is said to be bottomless, and in many places along the grassy bank you look down, down into the still azure depths until a kind of nightmare terror seizes you and chains you to the spot.

Returning in the twilight, we saw above the dreaming hills Mount Shasta staring straight through a veil of haze in his remorseless vigilance. Bald Mountain on the south looks down upon the barren peaks below him; while to our right and close at hand the pines, like grim old warriors, climb to the topmost point of Soldier Mountain. Near its base once stood Fort Crook, erected in the days of bloody conflicts with the Indians. It was early in the '50's that Lieutenant Brook, coming along Hat Creek to establish his post, dressed some of his men like women, and let them be seen, while he hid the others inside the wagons. A hundred Indians, headed by Shave Head, came down upon them, and were met with such a shower of bullets from the concealed soldiers that they fled in terror,

strewing the ground with their dead. For years afterwards a man could don soldier's clothes and travel with perfect safety, the Indians fearing he might be Crook.

Many interesting reminiscences were related to me by my island friends, who were unusually refined and intelligent people. Long after the stage bore me away from their cheerful home-circle, my mind still framed the charming group, and I wondered if they realized how pleasant they had made my stay at Fall River.

I was the only passenger. We did not return through Pitt Cañon, but over the lava beds as far as Burney Valley, and the journey was something frightful.

"You must get the motion of the stage, same as riding a horse," said the driver. "One man can cover a whole stage, and when he commences flouncing around like that, I know he's goin' to gin out."

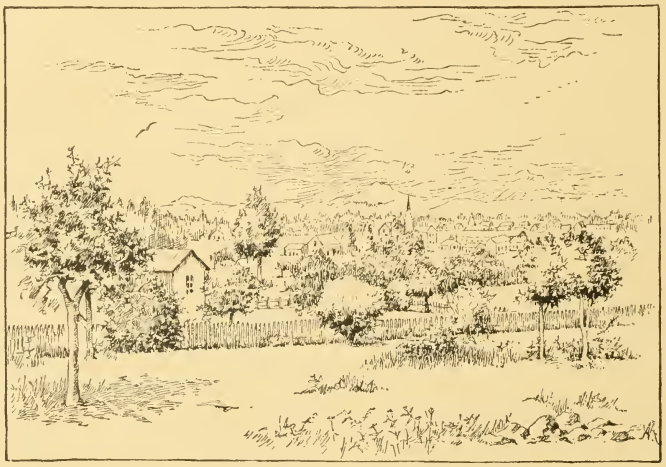
I refrained from asking him if he thought I would last eighteen hours, because I feared his answer would be discouraging, and I had fully determined on going through to Redding by morning. As I clung desperately to the seat during the long hours of the night, I had plenty of time to elaborate all sorts of plans for making stages more comfortable. I believe I settled on lining and cushioning them with all the feather-beds that had made my nights wretched in Fall River. On a distant slope we saw two deer grazing peacefully. The driver said he rarely failed to see one or more on every trip.

We reached Redding at five the next morning. It was with a thrill of delight that I again beheld the beautiful Sacramento ploughing its radiant channel through the grass slopes at Reed's Ferry, pausing here to broaden into a lake whose burnished shield shot back a thousand dazzling sun-points. It needed no urging to make me rest a week before proceeding farther.

One day I decided to visit the mines before going to Sisson's, and accordingly we started for Shasta the next afternoon. This little treasure city — the mother of all of Shasta's towns — is dropped down into a deep-mouthed cup of mountains, to which she clings with all her ivies. It is one of the most picturesque and romantic of towns. As you climb her streets — literally climb them — you pass old homesteads covered with vines, with spires of hollyhocks in front, and beds of marigolds like drifts of sunshine beside the paths. From an artistic stand-point we should be sorry to see these ivy-grown homes displaced by dwellings more modern or ornate. Shasta, so transformed, would

lose its "Sleepy Hollow" effect, and with this would vanish half its charm. It is hard to imagine that this quiet place was once the heart of all the mining done for miles around. You can see by her dry creeks the upheavals of the placer mines, and every now and then the black eye of a tunnel confronts you from some red-banked cliff. Almost every foot of her soil has a history.

Shasta is just the place for a health resort. She combines an admirable climate with the purest and coldest of water, and the serenity of her peaceful habits soothes one's weary nerves like an opiate. We arrived in one of her most exciting times, for her northern mountains were burning furiously, and most of the young men were out fighting fire. In the evening we went with



REDDING FROM LINDA VISTA.

several of her girls — the Shasta girls are the brightest, prettiest of damsels, with a fresh *naïveté* nothing short of bewitching — to watch the blazing forests that made a picture rivalling Doré's in immeasurable desolateness.

We went to Iron Mountain the day after, and much of the timber along the grade was robbed of its green and gold, and stood up stark and straight in its black nakedness. Some smouldered still, and here and there a huge log made a fiery core to heaps of coals and ashes. We were nearly three hours reaching the mine, which lay in a deep gulch overshadowed by high mountains. Twenty years ago this ledge was worked for iron, but as it did not pay, the people called it "Lost Confidence," which name still clings to it. Of late years it ranks first among the silver mines of the country. The mill is in per-

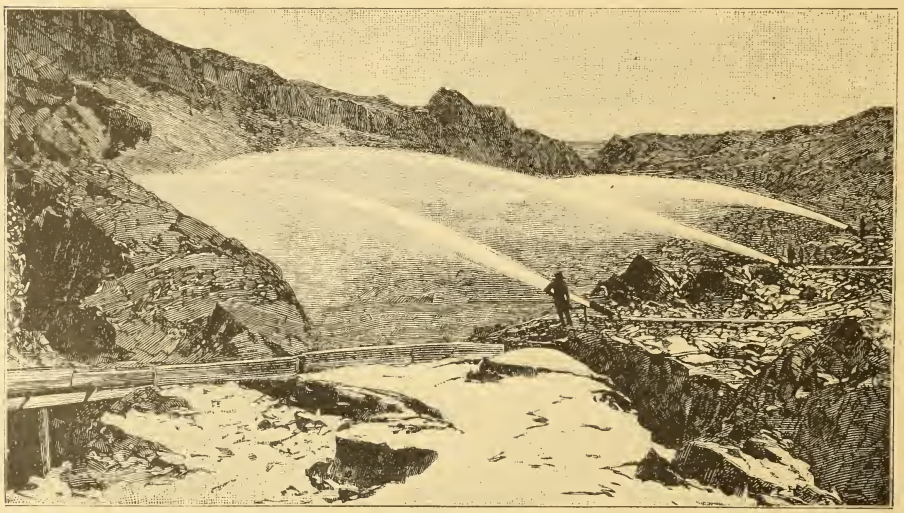
fect repair, and only needs more furnaces to give it a capacity for working fifty tons a day. The process used is roasting and amalgamation. They ship their bullion to Argo, Colorado. The superintendent told me that up to the time they built their mill they sent the ore first to San Francisco, and afterwards to Argo, finding they made a saving of $1,200 per ton, by changing to the latter place. It is a lack of forethought on the part of California to let this work go out of the State. The superintendent very kindly showed us through the mill and tunnel, answering our numerous questions with unfailing patience. It proved to be a most interesting day, and we came away fully appreciative of the courtesy shown us.

Going back to Shasta we stopped in an orchard for peaches. The branches were breaking down with their luscious crimson and golden balls. There certainly is no doubt that fruit can attain its highest perfection in this country. Hal told me he had never eaten finer flavored oranges in Los Angeles than grew just outside the town of Shasta. The next day we continued our journey to the mines, passing the Tower House on the way. This is an ideal country residence at the foot of Old Baldy, its orchards and meadows embroidered by four mountain streams that make a hundred turns among them. The fruit trees here are the first planted above Sacramento, and many of them are more than thirty-five years old. Everywhere along the creeks there is a most luxuriant growth of trees and flowers. The place is full of shady nooks and hints of lovers' walks, all beautiful enough to inspire a poet's muse. In the fragrant gardens beside the low white cottage are grassy lawns for croquet grounds and tennis, and here a group of lovely ladies were playing, in soft white draperies. These people spend their summers here, and their winters in Oakland. The hotel next door is largely patronized by guests that come from miles around to rest within its quiet walls and groves. The road in front is lined with English walnuts.

Beyond Upper Soda Springs the conductor stopped to let us drink from a delicious effervescent waterfall that tumbled down the cliff a few feet from us. After this our train was dragged around an endless succession of sharp curves on a grade that averaged from one hundred and ten to one hundred and sixteen feet to every mile. This road is a wonderful piece of mechanism. It doubles upon itself in a way utterly to confound the points of the compass. Rocks have been rent asunder, mountains pierced by tunnels, and chasms leaped across by bridges whose intricate

trestle-work resembled a magnified cobweb. The height and the depth of the cliffs above and below were equally appalling, and it was with a sense of relief that we watched our straining engine gain the plateau where Mott is built.

Here I stopped for breakfast, letting our train go on. This new town is little more than a beautiful large hotel, an editor's office, and a store, all newly built. It promises, however, to be quite a place in the next few months, as it has a beautiful location for a health resort within easy range of all the points of interest throughout here. The grounds are to be



MODERN MINING.

beautifully laid out in a park that will extend to Eagle Cliff, which overhangs the railroad track hundreds of feet below. The pines and firs are noble specimens, and the ground is covered with numerous varieties of ferns. As a place for families to spend their summers, Mott will be most desirable, as everything here is conducted on the temperance plan.

That afternoon we went to Sisson's on a freight train. From Lower Soda Springs to this place, the country was thronged with campers. Every house was filled to overflowing, and we found it impossible to secure a bed at any of the hotels. Finally, a lounge was prepared for me, and Hal took refuge in the barn.

Now that we were within a few miles of Shasta, it did not look so

wholly white. Its snows were ploughed by many a rocky ridge, not perceptible at a greater distance. It did not, however, lose its supernatural appearance thereby, but rather gained an effect more startling by the sharp contrast of lava rock and sweeps of snow. Shasta was named by Russian travellers, the proper derivation of the word being *Tcheste*, meaning chaste, pure. It is the culminating peak of the Coast and Sierra ranges, and has an altitude of 14,444 feet. Its glaciers extend for more than two miles down its slopes. We sat for an hour on the hotel porch trying to familiarize ourselves with this strange mountain, but its unearthly aspect did not change for us.

These Sisson meadows are green and fragrant with new hay. They comprise the greater part of Strawberry Valley, which is everywhere surrounded by pines. This valley takes its name from the quantities of berries among its grasses. Here is a little lake, with boats skimming over its surface, and on its gradual banks white tents looked out through the trees. Horses dashed by with merry riders, coming from some mountain jaunt. The woods were full of happy voices, and here and there children ran along the meadows, chasing butterflies. Under the cool verandas, or swung in hammocks fastened to the trees in front, the people lounged in restful attitudes. It would be difficult to imagine any mountain resort equal to this at Sisson's. All it needs is larger hotels to accommodate the hundreds of guests that crowd here since the railroad has opened a communication. These will be built the coming winter, and there is no reason why this should not rival Monterey as a fashionable summer resort.

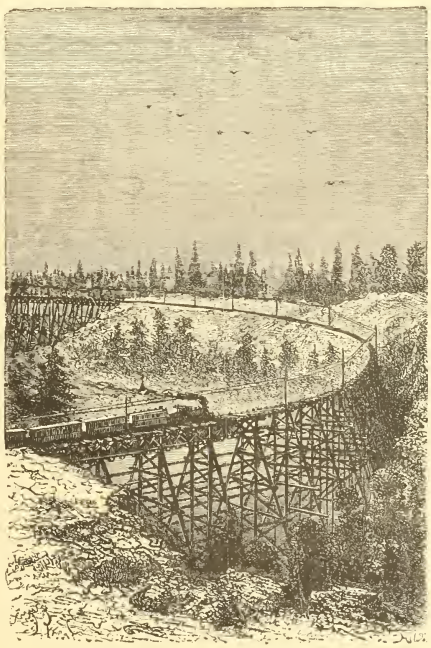
That evening a carriage load of people returned from a fishing and hunting excursion on the McCloud River. They gave enthusiastic descriptions of the trout and salmon they had caught, and the unrivalled beauty of the scenery. One man had shot four deer, an antelope, and a cinnamon bear, within three days. The McCloud is one of the most beautiful streams in California. It was named after McLeod, a Scotchman, but custom has simplified the orthography. Like the Sacramento, it owes its crystal waters to the melting shows on Shasta's head. From many a lava cup and channel underneath his crust, a thousand brooklets dash to light and join in one swift torrent at his eastern base. This torrent then takes a tortuous course through mountains all on edge, and runs a hundred miles to pour its volume into the Sacramento. The country all along the McCloud

is timbered with a giant growth of pine and oak, while along the river there is the wildest confusion of alder, willow, azalia, ceres, and calacanthus, and many other trees and flowers of rarest beauty and color. The river is full of pools and rapids, and has some picturesque falls near its source, within twenty miles of Sisson's.

A MOUNTAIN VIEW.

From these falls it is about twenty-five miles more to the United States Fishery. Sometimes the salmon are so thick in the pools that they hide the bed of the stream. There have been as many as one thousand taken from one pool at a single haul of the seine. The salmon come up the Sacramento from the sea, and their eggs give the trout their richest food. They — the salmon — are not so plentiful as they were some years ago, but there are still enough to satisfy the most exacting angler. The trout in the McCloud are of several varieties, the "Dolly Varden" being the favorite. These have pink and yellow spots and are large and fine flavored. Deer, elk, antelope, and several varieties of bear, are abundant here, and for smaller game you have the pine grouse, wood duck, pigeon, and quail. It certainly is rightly named "The Hunter's Paradise." The next morning we breakfasted early, and started for Castle Lake. We must make the trip in time for me to take the south-bound train at 5 P.M. I had stayed to the utmost limit of my vacation. Hal would remain

to hunt and fish and have a good time generally for several weeks to come. Our mountain train turned up a soft-lipped ravine, whose cool mosses and ferns carpeted the damp ground under the maple vines and hazelnut bushes. The thimble berries now wore their little crimson caps. Higher and higher we climbed, often crossing fallen trees and winding along slippery slides above the torrent-bitten gorges, through which we heard the insolent dash of water on the rocks. From the back-bone of a mountain that scarcely left our horses room to walk, we looked down on the sparkling streams of Cold Creek on the one side and a branch of the Sacramento on the other. It is nine miles to Castle Lake from Sisson's, but we did not reach it short of three hours' ride, as we were forced to walk our horses all the way.



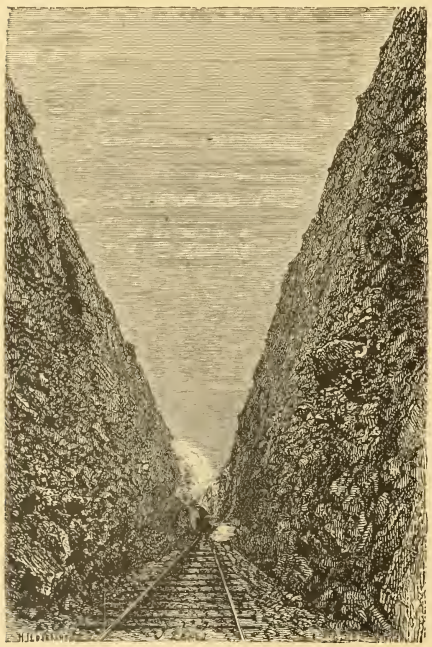
VIADUCT ON THE CENTRAL PACIFIC RAILWAY.

This lake makes an enchanting picture, lying in its crater cup, its blue expanse reflecting all the glory of a noon-time sky. The spiked pines came down in groups and columns from her mountain wall, and on her banks the azalias shook the perfume from their pink-tipped clusters. These flowers almost wreathe the entire lake.

We ate our lunch with relish beside a little stream, and remounted our horses, shaking hands with Mr. Syd whom Hal promised to join the next morning. We took the upper trail back, which led us to a summit with an altitude of seven thousand feet. There were acres of wild raspberries here, and in a swampy hollow were beds of pitcher plants that are said to be found nowhere else in California. From this mountain we had our finest view of Shasta. Above this dark girdle of forest this modern Sinai raised his sovereign brow in the portentous silence of his infinite isolation.

"It is terrible to be up there!" said our guide, with almost a shudder. "One is in no danger of forgetting the experience. As I was following

that lava ridge this side of the Devil's Thumb, I saw far off on the snow a black object about the size of my finger, wriggling and staggering about, falling flat occasionally, and then resuming its fantastic gyrations. I observed it carefully, and discovered the object was forked, and then it flashed through me that it was a man climbing the glacier. When our party gained the cleft peak that forms the summit, we were met by a perfect avalanche of clouds that tossed and tumbled about, giving a ghostly indistinctness to everything. We appeared to be in a world of unrealities, peopled by shadowy creatures that lengthened and contracted, and flung about their vast white wings above the sickening fumes that steamed up from the hissing, spurting, hot springs at our feet. A momentary parting of the clouds showed the sky blue as indigo, closing down in awful nearness. Through a revolving glare the blood-red sun swung in the frightful purple of the heavens. Fronting these unaccustomed elements a solemn dignity possessed the soul, and gave a conscious feeling of infinitude. The loss of all familiar landmarks lent an indescribable terror to the scene. This dead volcano's throat is choked with snow. On its icy rim one of the ladies slipped and fell headlong over the fearful chasm. The guide caught her by one of her feet. Her escape from a horrible death was almost miraculous. We were nearly frozen with the cold, and yet our mouths were parched and hot as in a desert. Our hearts throbbed painfully, and we drew our breath in gasps.



BLOOMER CUT ON THE CENTRAL PACIFIC RAILWAY.

"Before we commenced the descent, a fierce blast tore the mists asunder, revealing the grandest picture we shall ever behold on earth. From this majestic temple we could see hundreds of miles of kaleidoscopic landscape. Mountains, rivers, and valleys, with spurs of rocky ridges cutting through

tawny farm fields far away; green meadows starred with lakes, and billowy ranges running toward the sea; while fifty miles of dense pine forests spanned the McCloud and Pitt to touch the snowy heads of the Sierras. And Oregon's rich prairies linked to ours by a chain of silver-surfaced lakes; to the south, beyond the mighty Lassen Buttes, we catch a glimpse of dusky plains with isles of clustering peaks. Three times I have seen all this, and yet I feel an irresistible desire to go again. In spite of the labor and exhaustion attending the ascent, the vision from the top is worth a greater sacrifice."

THE OLD MISSIONS OF CALIFORNIA, FROM SAN DIEGO TO SANTA CLARA.

NOTHING could harmonize more perfectly with the wonderful scenery of California, than the old Missions dotting the coast at intervals of about thirty miles, from San Diego in the south, to San Francisco at the north. These picturesque chapels, now fast falling into ruins, are links joining the old Spanish civilization of the last century to the new American life of to-day. They serve as an historic background for recent events, and, for the State, are as valuable as ancestors for the family. They were built in this wise: —

The Jesuit Order of Friars took possession of the Peninsula of California in 1698, and established there eleven missionary stations, where they gathered the twenty-five or thirty thousand Indians who were glad to find subsistence and instruction at the hands of the fathers. This system of reciprocal authority and submission at last excited the jealousy of the Spanish government, and in 1767 Carlos III. sent out a governor to expel the Jesuits and to take charge of the country. It was expected he would find great accumulations of treasure, and meet with much opposition in executing the royal will. On the contrary, he experienced only pity and regret when he saw a few poor old priests attended by sorrowing natives, as simple and defenceless as children.

Upon the departure of the faithful teachers, the Missions were abandoned, few of the converts remained in the peninsula, and the buildings fell into ruins. In 1768 the Franciscan Brothers of the College of San Fernando in the City of Mexico, took possession of the deserted field, and undertook to prosecute the religious labors of the expatriated Jesuits. These labors and the zeal of the Order were much aided by projects of the Spanish government, which wished to establish ports of supply and repairs in Alta California, as well as to be prepared to defend that rich region from the aggressive cupidity of the Russians. For these purposes it planned to occupy the harbors of San Diego and Monterey. The Visitador General of New Spain organized, at La Paz, expe-

ditions for those ports, under Governor Portola. The spiritual direction was given to a young Franciscan monk, Junipero Serra by name, who, with sixteen brothers of the same Order, accompanied the expeditions. Each Mission, to be established, was to consist of a church, a fort garrisoned by a few soldiers, with the storehouses and dwellings that would naturally group themselves in the immediate neighborhood. While no grants of land, in a legal sense, were to be made or promised, allotments *in some fashion* were understood. In fact, fifteen square miles were usually subdivided in small lots, according to the number of Indian families belonging to each Mission. The churches were mostly of a semi-Moorish type of architecture, built of adobe or sun-dried bricks, although in a few instances stone and red brick were employed, stuccoed, whitewashed, and roofed with tiles. A square, of which the chapel formed one corner, was enclosed by adobe walls, the granaries and storehouses being built as a part of them. Here the natives were taught the trades of tanners, shoemakers, weavers, blacksmiths, stone-cutters, and brick-makers. They became also expert in husbandry, the rearing of horses and cattle, and the raising of grapes and olives. The

A VISION OF OUR WESTERN EMPIRE.

women learned carding and spinning, weaving and cooking, while embroidery and basket-making acquired the proportions of fine arts. The produce of the land and all profits accruing were at the disposal of the priests. Whatever was not required for the support of the Missions, was under their control in the form of a sinking-fund. Flocks and herds increased mightily; hides and tallow were sources of great wealth, fruits and vegetables were grown in perfection, so that the annual income of the several Missions was carefully estimated at three millions of dollars.

This seeming prosperity redounded immensely to the aggrandizement of the Franciscan Order, and was moreover, in a way, an excellent school for the Indians; but virtually they were the slaves of the Order, and as such were liberated by an act of the Mexican Congress in 1826. At the same time the property was secularized, but it was not until 1834 that the Act was enforced. Even then the final dissolution was postponed by Santa Anna's coming into power. In 1845 the property, stock, land, and buildings were sold at auction to the highest bidder.

SAN DIEGO.

The first Mission founded by the Franciscans, from San Fernando College in Mexico, was named in honor of the patron saint of Spain (St. James). The natives, somewhat versed, perhaps, in the ways of white visitors to their coast, were most unfriendly to the settlement. Frequent collisions took place, and in 1775 the Mission was destroyed and Father Luis killed. Father Serra, the intrepid leader, welcomed this baptism of martyr blood, and immediately proceeded to erect permanent buildings. The site selected was five miles from the San Diego Bay, in a valley watered by a river of the same name. The buildings were excellent, occupying several acres; the gardens and orchards were full of fruit. Water was brought in cemented *zanjas*, or ditches. Even now, when decay has crumbled the walls, the remaining ruins testify to the thoroughness and taste of the builders. Portions of the church and dormitories remain, but the tower has fallen, and the bells have been removed to the Roman Catholic church at old San Diego, where they are supported on scaffolding and still ring for Sunday services.

Soldiers have been quartered in the old Mission buildings, and have not scrupled to cut down many of the fruit-trees to use for fuel. Still,

many of the old olive, fig, and pear trees are left; even a few of the date palms also. Olive cuttings from these gardens have made the beginning of most of the olive orchards in the State.

The Roman Catholic Bishop of the diocese now owns the property.

SAN CARLOS DE MONTEREY.

The colonists made their second settlement on El Carmelo Bay, near the old Port of Pines, a charming seaport of wonderfully beautiful and varied coast line, where the blue Pacific rolls its crested waves into deep rock indentations, and dashes with extraordinary force through curiously perforated cliffs. Here the Monterey cypress spreads its sombre canopies, while oaks, almost as black and dense, temper very materially the exquisite brilliancy of sky and sea. The chapel, built of stone, bears the inscription: "Fendata, 1770. Renovata, 1883." The floor of loose boards is laid over only a part of the ground surface, while the remaining part is of earth, trodden compactly and hard by feet of past worshippers. The bells were removed to the new church at Monterey. A gallery extends across one end, and is reached by a narrow, closed stone stairway of twenty long steps. Unusual interest attaches to this church as being the burial-place of several of the early Padres, including Junipero Serra and Juan Crespi.

SAN ANTONIO DE MONTEREY.

Monterey was, almost from the beginning of the Spanish *régime* in California, a capital town, and it retained its important position under eleven Mexican governors. Its centre was inland, about five miles from El Carmelo Bay, so that the Mission of San Carlos was found inconveniently distant. San Antonio was therefore built, the same year, 1770, and in similar style. A pattern laid in bleached whales'-bones is at the front entrance. The pictures on the walls may be slightly better than those seen in some of the churches, but they are all bad enough to wish them better — or fewer.

SAN ANTONIO DE PADUA.

In the Salinas Valley, sixty miles from Monterey and twenty-five from the sea, the Padres made their third settlement in 1771. It consisted of seven farms, with a chapel for each. The church had what was uncommon, a brick façade. The long corridors are yet in good repair.

A remarkable miracle is recorded: Once, when crops were suffering for want of water, petitions were offered to a patron saint, simultaneously with the practice of irrigation. A bountiful harvest was the result!

SAN GABRIEL.

When in 1771 the fourth Mission was to be established, the Fathers, as rich in worldly wisdom as in spiritual graces, selected the beautiful San Gabriel Valley, open to the sea on the south, and encircled on the west and north by the Sierra Madre and Cocamungo ranges; while the glorious peaks of San Antonio, San Bernardino, and San Jacinto, carry the eye into the blue sky, and lead around from summit to summit to the Pacific. Here the old vineyards produced from four to six hundred barrels of wine yearly, and two hundred more of brandy. The seventeen ranches were cultivated by two hundred yoke of oxen; the orange groves and Mission grapevines waxed and multiplied, while huge cacti, higher than a man's head, grew as a boundary line. To-day, a few century-old orange-trees hang over fragments of tombs and aqueduct remains, and here and there a straggling row of cactus indicates the line of the broken series.

The interior has suffered cruelly from repairs — they cannot be called restorations — quite incongruous with the original design. A grooved, varnished, redwood ceiling is sadly out of harmony with the loose, rough floor, and rude pictures of saints and martyrs. Service is still held on Sundays; the young priests' habiliments, chosen from the rich vestures in the dressing-room, are also out of keeping with the tawdry altar decorations and general poverty-stricken air.

SAN LUIS OBISPO, DE TOLOZA.

In San Luis Obispo County, nine miles from the sea, in 1772 was founded the fifth Mission of the diligent Franciscans. The rich valley furnished excellent pasturage, and the increase in horses and mules became enormous. The soil was specially adapted to wheat, and olives also were cultivated in great abundance. Both church and dormitories have suffered from inconsistent repairs, but are kept in good condition. The bells have been carried away to the new town.

SAN FRANCISCO DE LES DOLORES

Was founded late in 1776 at San Francisco, which city is rapidly overtaking the only piece of antiquity within its sand-hill limits. It is of adobe,

A FOREST VIEW.

with a tiled roof, but in some columns of the Doric order of architecture it has distinguishing features. The first baptisms that occurred in the Mission were of three children, all born within two months, sons of an Indian and three sisters, all of whom, as well as their mother, he had

married. Recently it has been used as a parish church, and at its centennial celebration eleven thousand persons assisted. General Vallejo, a former Spanish military commandant, delivered an address in his own language, while the California governor did the same.

SAN JUAN CAPISTRANO,

Or St. John the Chanter, is in the northern part of San Diego County; was founded in 1776, the seventh in order of time. The church was built of hewn stone, drawn by the Indians by means of big chains, some worn links of which are still shown. Thirty years were consumed in the building. It was of a better order of architecture than most of the Mission churches, in shape a cross, with walls arched in solid masonry work. The bell tower was upheld by six columns of stone, the unbroken bells of which are now hanging in four arches near by. For, in 1812 an earthquake threw roof, tower, and bells over, killing thirty-five of the kneeling congregation and wounding many others. It is considered by some the finest ruin in the United States.

Some of the buildings are yet in a decent state of preservation, but religious services are held in a small adjacent chapel. Father Boscano, the same who was wounded in the fight with savages at San Diego, was a most enthusiastic collector of Indian-ana. His records of the legends, superstitions, and traditions have been translated, and are believed to be complete and exhaustive.

SANTA CLARA.

On the south arm of San Francisco Bay, in the wonderful Santa Clara Valley, was established the eighth of the series of Missions. It became one of the wealthiest, as well as one of the most important. The cattle multiplied so prodigiously that the Governor of California issued an order commanding the soldiers to kill 20,000, wherever found, lest pasturage, even in that fertile land, should become scarce. A most remunerative trade was built up of olives. They were of the celebrated "Mission" variety, and correspond with those used for oil in the Riviera and Luchese districts of Italy, and the Avignon and Riviera districts of France. Many of these trees are still standing, and old vineyards are also in bearing. The Alameda, a

broad avenue, three miles in length, is still shaded by the trees planted by the Padres a hundred years ago. The houses of the converts were numerous enough to form five streets, and bespoke more than common comfort in their style of living. The church now forms a portion of the present Jesuit College.

SANTA BARBARA.

Beautiful for situation, three hundred feet above the sea, stands the Mission of Santa Barbara, the tenth in order of foundation. In the Bay can be seen the Anacapa, Santa Rosa, and Santa Cruz islands, the coast line seeming almost to join them, and so to continue in a segment of a circle, the beautiful curve of the Santa Ynez and Gaviota mountains. The old church, being much shattered by earthquake shocks in 1812, was taken down, and the present building, of sandstone, erected in 1815–1817. Unusually heavy timbers were brought from the San Rafael to the tops of Santa Ynez mountains, and sent by shutes into the valley. It is in excellent repair. At each front corner is a tower thirty-five feet in height, crowned by double belfries, each bearing the symbolic cross. The fountain and washing tank in front, with bath-house on the hill, are well preserved, though the barracks, guard-house, tannery, and mill are in a ruined condition. The dam remains as a reservoir, from which the town is even now supplied. This mission is the only one left in the possession of the Franciscan Brotherhood. Father Romo and eight brothers reside within the walls, where also are many valuable manuscripts. Santa Barbara had been intended for a cathedral and university town; but alas! now the walls and parterres which the Fathers loved so well are almost obliterated.

No woman is ever allowed to step across the threshold into the tangled garden.

LA PURISSIMA CONCEPCION.

This Mission, situated in San Lucia Valley, has been specially unfortunate. It was built in 1787, in the north portion of Santa Barbara County, and of adobe. In the same earthquake that threw down the roof and belfry of the neighboring San Juan Capistrano, La Purissima was shaken to its foundations. At the first shock, the natives ran to seek refuge within its sacred walls, and several were killed in the final fall caused by the second shock.

The Indians were superstitiously timid about rebuilding upon the old site, so the Padres yielded to the feeling, and put the new church fully three miles distant. During a violent storm, a spring burst to the surface under the walls, weakening them so materially as to render the building unsafe for occupancy. Thereupon, the altar was removed to some rooms enlarged and fitted for its reception, and no attempt made to rebuild. Fire has visited the ruins, and they are now used as stable and storeroom for an adjacent ranch.

There remain several well-constructed reservoirs, from which the springs have been diverted, aqueducts and fountains remaining dry. A few old pear-trees bearing inferior fruit are all that witness to the cultivation of those early days.

SANTA CRUZ.

The twelfth in the series of Missions was built in 1791. Like Nuestra Señora La Solidad, of the same date, it is in ruins. Originally it was of the poorest type, wooden columns being inserted in place of the masonry work more commonly employed. Its plain exterior was relieved and dignified by a buttressed façade and bell-tower. The outlook across Monterey Bay to Cypress Point, taking in the forests on Loma Prieto, is exceedingly fine.

SAN BUENA VENTURA.

In Santa Barbara County, near the mouth of the San Buena Ventura River, stands the Mission of the same name. The town is supplied with water from this river. The church, built in 1782, is in fair condition. In the large cemetery are the bodies of four thousand Indians, whose deaths are recorded in the Mission books. Two beautiful palm-trees are left to show what has been.

NUESTRA SEÑORA LA SOLIDAD.

Among all the Missions, perhaps this of Na. Señora was of the most ordinary character. It was also most disadvantageously situated in the plain of the Salinas River, where heat, dust, and sand were nearly intolerable. Its wooden pillars early fell into decay, and the curious red floor became perforated by gophers. At the time of the secularization, however, the

Mission was rich in herds and in such products as it had undertaken to provide for the market. Father Sarria refused to desert his flock, and remained till the destitution became so great the good man died of starvation while celebrating mass.

SAN JOSÉ

Was built in 1797, sixteen miles from San José, at the base of hills on San Francisco Bay, in Alameda County. A fine reservoir, supplying gardens and fountains, furnished also opportunities for bathing and washing. The adobe church was destroyed by the earthquake of 1868. A chapel of wood now stands upon the site. During the prosperity of the Russian Fur Company, San José supplied its stations with immense quantities of grain, and now furnishes wine for sacramental purposes to all the Roman Catholic churches on the California coast. The Padre, Narciso Duran, was so much beloved as to have excited comment of historians of the Missions.

SAN JUAN BAUTISTA.

This Mission, named in honor of St. John the Baptist, was set down in the quiet town of San Juan, in Monterey County, in 1797. A broad Plaza stretched in front of long corridors of arches, while large pear orchards yielded fruit of delicious flavor and in great quantities. There are some Indian-carved furniture, an ancient bass-viol and violin, with curious parchment music-books — each part being indicated by a different color — still exhibited to visitors at the church. Peculiarly rich vestments and other rare articles are also carefully preserved. This movable and immovable property fell in the final distribution to Castro, prefect of Monterey.

SAN MIGUEL.

San Miguel was one of the four Missions established in 1797. It was in the northern border of San Luis Obispo County, in the valley of the Salinas River, near where the Estrella joins it. It is twenty-five miles from the sea, and so sheltered by San Diego mountains that it is of an unbearable temperature — the mercury often touching from 103° to 110° in the shade. The church is of adobe, and has curiously unequal arches, well preserved in its

corridor. By the original rawhide cords the old bell is still hanging in an angle by the door. The exterior is extremely plain. Service is still held here. Father Juan Cabot opened a house in 1828 for rheumatics at the hot sulphur spring, since which a sanitarium has grown up for that class of afflictions.

AN OLD MISSION TOWN.

SAN FERNANDO REY.

About twenty miles from Los Angeles City, in 1797, was founded this Mission, and named for the Spanish king. The large garden was surrounded by a high adobe wall, around which willow and pepper and extraordinarily large olive trees flourished. One palm attained a height of fifty feet. The church itself was of stuccoed adobe, but a drinking-trough was wrought in stone, with a dove upon the rim. At present the last Spanish Governor, Pio Pico, with members of his family, spend their summers in one of the old buildings.

SAN LUIS REY, DE FRANCIA.

Father Antonio Peyri, who gave the name of Louis IX. of France to this Mission, had had much experience as a teacher among the Indians.

The site selected was the valley one mile by twenty-four miles of the San Luis River and near its entrance into the harbor of the same name. So much water gave the hamlet a Venetian aspect, and suggested, perhaps, the diagonal pattern resembling that on the Ducal Palace for the front of the church. The buttressed walls were of heavy adobe, and a long corridor of thirty-two arches extended from the church along the front. This was surmounted by a latticed railing, which enclosed seats from which the bull-fights, and other entertainments given in the court, could be seen. There were quarters provided for the Fathers, the major-domos, for store, work, and sleeping-rooms, for hospitals, for families of the overseers, guard-house for one dozen soldiers, and spacious granaries. Of these last there was much need, as their records show that for 1829, thirty-one years after consecration of foundation, 6,000 bushels of barley, 3,000 of wheat, 10,000 of corn, had been garnered. At that time the Mission controlled 200,000 acres of land, employed 3,000 natives, owned 60,000 head of cattle, and 20,000 sheep. There were large orchards which bore much fruit, and gardens of choice vegetables. The Mission occupied a square measuring four hundred and fifty feet on each side, in a most commanding position; a fountain was in the centre, surrounded by date-palms, pepper-trees, and so many maguey plants, that it was not uncommon to see a hundred in blossom at once. The church was of adobe, stuccoed, one hundred and sixty feet by fifty; sixty feet high, and the walls, now nearly resolved into their original element as mere earth-heaps, four feet thick. The tower had belfry for eight bells, now all gone. The roof timbers, brought by Indians from long distances, were very large. The interior is all dismantled, bats and owls hold high carnival up among the rafters. Even the small chapel adjoining, and presumably of much later date, is in ruins also. One pepper-tree and a very few stunted cacti remain of the ornamental planting.

PALA.

A Mission station of San Luis Rey de Francia. It is in the lovely Pala Valley, thirty miles from the chief buildings. Here and at the San Ysabel station, a few miles south, reside the largest number of Indian converts since their dispersion in 1834 to 1845. The bells summon them to a service read by an old Indian; chants are sung by a native choir, the

same that were taught by the Mission Padres. Afterwards the congregation take part in shooting at a mark, races on foot and on horseback, with the same gusto as they had shown in the church service.

SANTA YNEZ, VIRGIN Y MARTYR.

Six years had gone by since the last Mission. San Luis Rey had been built, and the new century was already advanced to its fourth year when it was determined to found the Mission of Santa Ynez. The valley is forty miles north of Santa Barbara, and fifteen from the sea, and so beautiful and fertile that the Order of Dominicans has retained it since the government sale of the Mission properties. The buildings are kept in good order; a large brick tank is still used for water; the bells yet hang in the belfry, and old vestments, altar furniture, and pictures have been preserved with scrupulous care. From 20,000 to 30,000 acres of this property have just now (1887) been sold.

SAN RAFAEL.

This Mission, and that of San Francisco de Solano, were allotted to a Commandante Vallejo in the final breaking-up of the Mission system. It had but a brief existence, as it was founded in December, 1814. No vestige of it now remains. It was situated in Marin County, just south of Sonoma, or the Valley of the Moon.

SAN FRANCISCO DE SOLANO.

Although this was the last Mission established, in 1826, no more complete ruin has overtaken any of them. It is situated in the town of Sonoma, and, becoming the property of General Vallejo in the distribution that took place in 1845, it has been converted into the most extensive vineyards in California. It was named in honor of the chief of the Suisuns. Mission nomenclature thus descended from saints and angels, to kings and chiefs.

JUNIPERO SERRA.

Junipero Serra was born in the Island of Majorica, November 24, 1713. It is remembered he was, as a child, fond of the biographies of saints, and he was early destined for a monastic life. He received his education in the

convent of San Bernardino and the University of Padua. He was admitted into the Order of St. Francis when sixteen years of age, and in 1731 he changed his baptismal name of Michel Joseph to Junipero.

This Franciscan monk was sent to California by his Order in 1768. He founded six out of the twenty one original Missions, and gathered over seven thousand Indians into the church. He died at an advanced age, and is buried with three other friars near the altar of Our Lady of Seven Dolors, in the unused church of San Carlos at El Carmelo de Monterey.

Hic Jacent exuviæ
Adm. Rev. Patrio Junipero Serra
O. S. F. Missionam Californiæ Fundatoris ac Præsidio
In Pace Deposita . . .
28 Mensis Auguste.
Atque sociorum jus R. R. P. R.
Joannis Crespi, Juliani Lopaz et Francisci Lasueu.
Requiescant in Pace.

COOKING FISH IN THE YELLOWSTONE.

THE YELLOWSTONE PARK.

I.

ON THE SHORE OF YELLOWSTONE LAKE.

In the extreme north-west corner of Wyoming Territory lies a tract of land, nearly half as large as the State of Massachusetts, of most remarkable character. Previous to 1865 very little was known of the region. Occasionally a prisoner escaped from his Indian captors, or a gold-seeker strayed from his expedition, brought back marvellous stories, but they were classed with those of Lilliput or Munchausen's. It was related that there were mountains formed of gold and silver nuggets, that the river banks were knee-deep with the fine dust of the same metals, while the trees sparkled with fruit of diamonds and rubies.

But it was not until 1871 that any official report was made. In that year Prof. F. V. Hayden laid such a document before the United States

Congress, which resulted in obtaining for the nation a pleasure-ground, to be known as the Yellowstone National Park. The main line of the Northern Pacific Railway runs through Livingston, Montana, whence a National

YELLOWSTONE PARK.

Park branch brings the visitor fifty-one miles in a southerly direction to Cinnabar. Here carriages are taken for the drive of six miles to the Mammoth Hot Springs, through wonderful mountain scenery. An enthusiastic traveller says: —

"Ruins of old palaces sprang from the mountain sides, quaint figures walked in phantom gardens, spirit flowers leaned over stone fountains, frowning bulwarks buttressed the horizon, sage brush had grown to trees, and all the world seemed a phantasmagoria."

YELLOWSTONE RIVER.

The Mammoth Hot Springs form the entrance to the Park, and are the beginning of unparalleled wonders. The chasms and clefts of eternal rock are awful to see, and deep, dry wells, sunk out of sight, give a faint impression of the forces that have been at work. Here, too, is an electric mountain, as it is called, and when a storm threatens its metallic blues and grays are of peculiar shades of color.

A calcareous deposit covers three square miles, and lies in fourteen well-defined terraces, where once boiling springs were active. Mounds forty feet high cover three-quarters of an acre at base. One known as "Liberty Cap" is forty-five feet high, but only twenty feet in diameter at bottom. According to Dr. A. C. Peale's scientific report, this is "the cone of an extinct geyser, composed of overlapping layers of sediment, built up by the overflow of water from the orifice at the top."

YELLOWSTONE LAKE.

One orange-colored mound is almost extinct as a spring, yet survives in intermittent gasps through small crannies of outlet. Geologists give 40,000 years as not too many for its building. It rises abruptly from the plain in quite an isolated position. It embraces trees in its stony

grasp, and on the top, one can stand among their branches. Another mound is named the Narrow Gauge. In the boiling water, as it streams from terrace to terrace, algæ have grown in all colors, and all shades of colors, in long silken threads or grass-like blades.

The lime formations about these many extinct and few active springs are amazingly beautiful. The crust is hard while wet, but soft and friable

GEYSER LAND.

when dry. Tier after tier of semi-circular basins overflowing with purest alabaster; soft pink crystallized coral, starry lichens studding lace-rimmed vessels, saffron tints flushing into rich, swarthy browns and ochres swathe all the ground. One cannot step without crunching down a mass of fairy vegetation, and destroying millions of exquisite tracery.

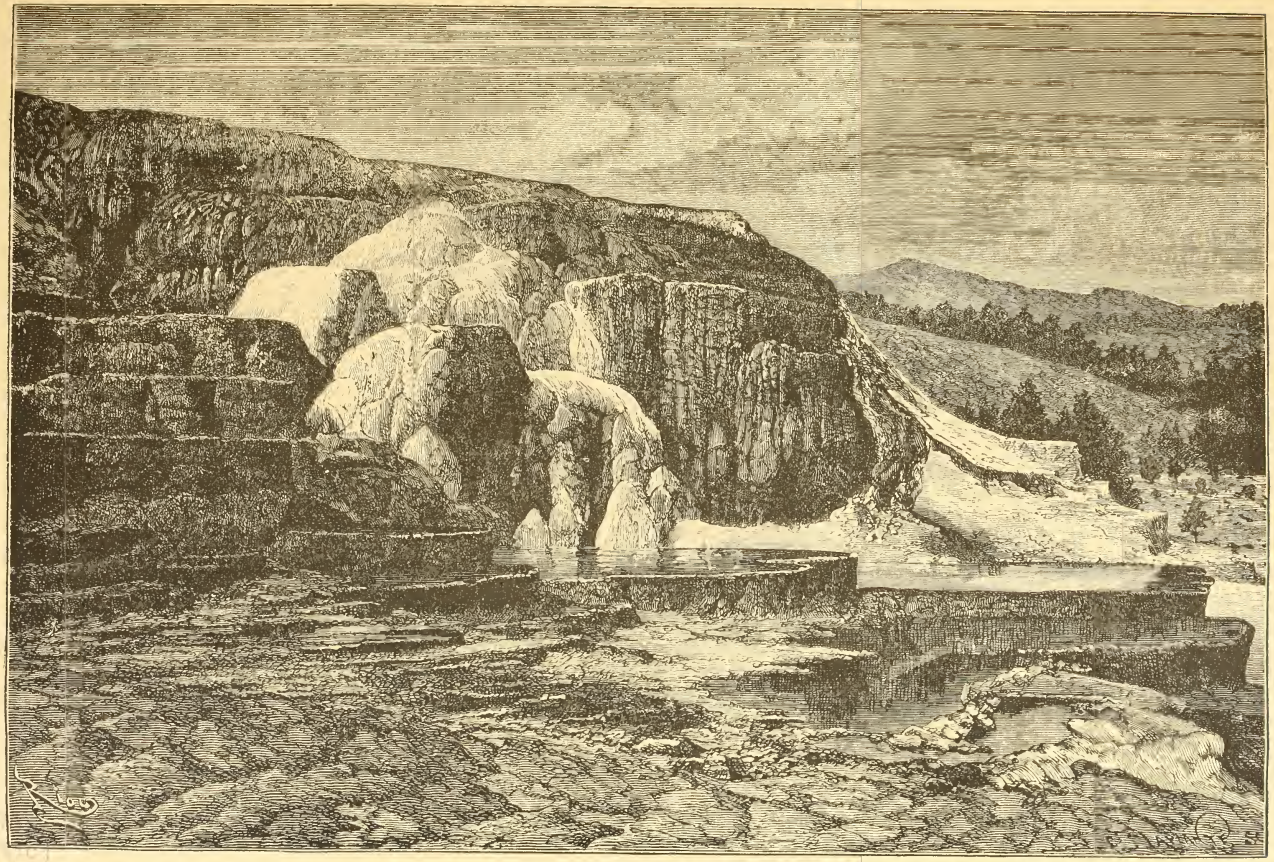
To quote again from the enthusiastic traveller as to the view from the hotel window: "I can see towering into the bluest of skies, the barrenest of

mountains, washed and seamed by torrents of ages; here and there a gully has sheltered a fringe of firs, and once in a long way a little clump of yellow poplar throws a vivid blotch of color on the dull gray. Turning my face the other way across the barren plateau, the sight is too extraordinary to describe in any words of mine, — enormous oyster-shell-like formations cut into long blocks flat on the top, but rimmed about with semi-circular uniformity, filled to the brim with water, boiling over into the next lower cavity covering the Parian marble carving with *confervæ* of green, gold, brown, orange, pink, cream, etc. Now I know you cannot conceive this. No heart of man can, it is too unique. Climbing up from fountain to fountain all is changing. Extinct geysers, exquisite pools of pink, blue, streaming, bubbling, and boiling, till your heart faints with fear at thus beholding the very foundations on which the world is laid. The very bowels of the earth lie bare and riven before the eye. Nature commits hari-kari! We walked miles on the most delicate coral-like stuff, setting our brutal feet plump into a *plat* of snowy cacti, or a dish full of saffron-tinted lilies at every step."

TOWER FALL.

Leaving the Plains of the Mammoth Hot Springs, the mountain road ascends on trestles spanning the gorges, or by cavernous cuts in the solid rock. Everywhere lie white, crumbling stones, huge and monumental under fire-stricken trees, which extend for miles and miles, the passes and cliffs becoming each instant more grand and impressive. At one point two enormous bowlders, on each side of the narrow road, mark "The Gate" *par excellence* to the Park. The river is here an added feature, and so continues with its Falls and Rapids much of the way to the Grand Cañon.

The Grand Cañon of the Yellowstone River is unspeakably splendid and terrible. Beautiful white cliffs scarped and crumbling, rich red sands streaked



THE SOURCES OF THE MAMMOTH.

by peanut pink, golden browns, lively grays and deep yellows, make a gorgeous valley, at the bottom of which, from one to two thousand feet away, rolls the rapid river, bursting now and again over falls as high as one hundred and sixty feet. Tall, isolated peaks of brilliant colors rear the oddest configurations. Sea-dogs and walrus seem to be reclining on the ridges. Solemn Turks, cosey cats, gay-plumaged birds, take their turn in the comic procession. Eagles have really lodged their nests among these pinnacles, and taught their eaglets to fly from the towering minarets.

At the farther end of the ravine the views are glorious. One seems to be always in a fir-rimmed basin, and this one of the Grand Cañon is as marvellous as possible.

From here the excursion to the Yellowstone Lake is made. It lies 7,788 feet above the sea, and is the largest one in North America at that altitude. Artists have already found out the spot and transferred it to canvas. But the coloring is so peculiar it can never seem other than an exaggeration except to those who have seen it with their own eyes. This remark is true of the entire region. When we say *stone color*, do we mean the gay reds and yellows, the blues and browns, we see here? And are we not taught that water is colorless? What, then, can we call these shimmers of lovely tints, these stretches of softest color?

PHILIP CASCADE.

The Lower Geyser Basin, in another evergreen frame, has fountain geysers, multitudinous boiling springs, and the Paint Pots. The whole is called "Hell's Half Acre," and a diabolic scene it is! Witches themselves could devise no more characteristic brews than the simmering, bubbling, flying, flopping, dropping Paint Pots. They are of splendid coloring, and in the slow, steady boiling throw up lotus-shaped flowers or callas, tossing out a detached pistil, or a long drawn-out stamen; and while one can say "Oh, how perfect!" it drops back into its bed of seething mud, only to form again into its blossom and again to be absorbed. There is something almost pathetic in this materi-

alization of an exquisite thing from such a body. There seems a force quite inadequate and yet perpetually at work, forever striving to achieve — yet all in vain. It is fascinating to watch the process. One never wearies of it.

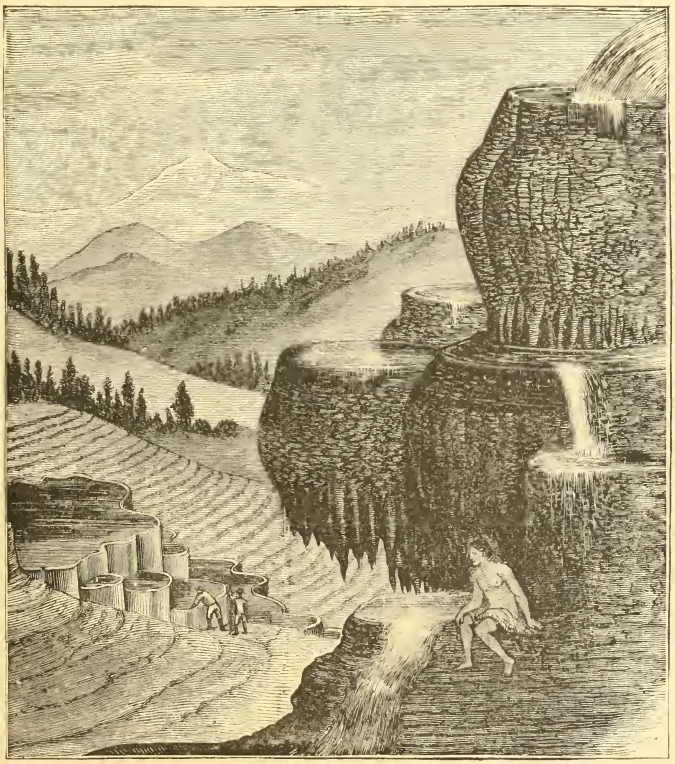
The Upper Geyser Basin is, perhaps, the most wonderful thing in the world. The theory of geyser action is, "The ejection of water caused by explosive action, due to the heating of the water, under pressure in the lower part of the geyser tube, to considerably above the boiling-point. The heated water acquires, after a time, elastic force sufficient to overcome the weight of superincumbent water; and the relief from compression during the ascent is so great that steam is generated rapidly, and to such an amount as to eject violently from the tube a great quantity of the water." This scientific view of a geyser is not altogether reassuring, when one stands near the great vents of these monstrous internal furnaces. There are innocent-looking, rocky depressions, upon which one may look, or even stand, when, presto! a furious bubbling, a rushing income, a violent boiling, a frightful bursting forth. The sky is darkened by the shooting column of steam, the ground is inundated, and the spectator has run for his life. Or one sees a lovely pool, a very *pot-pourri* of distilled flowers. It lies basking in calm sunshine; but while one gazes as upon a true symbol of peace and quiet, lo! it angrily jets into the zenith, and holds high carnival two hundred feet in the air. The opaline light-flecked colors of the pools are most beautiful, but they hide yawning, sulphurous jaws, through which it would seem one might easily slip to the fiery centre of the globe.

MARY'S VEIL CASCADE.

The "formation" opposite the hotel is an infernal arrangement. Crossing the brook, one sees small, button-like bubbles studding the damp mud — perhaps they run together, and thus joining forces before your eyes, *begin* a new geyser. Ascending the bank on the shelly crust, all is so white and desolate that it seems a winter scene. Even the fir background adds to

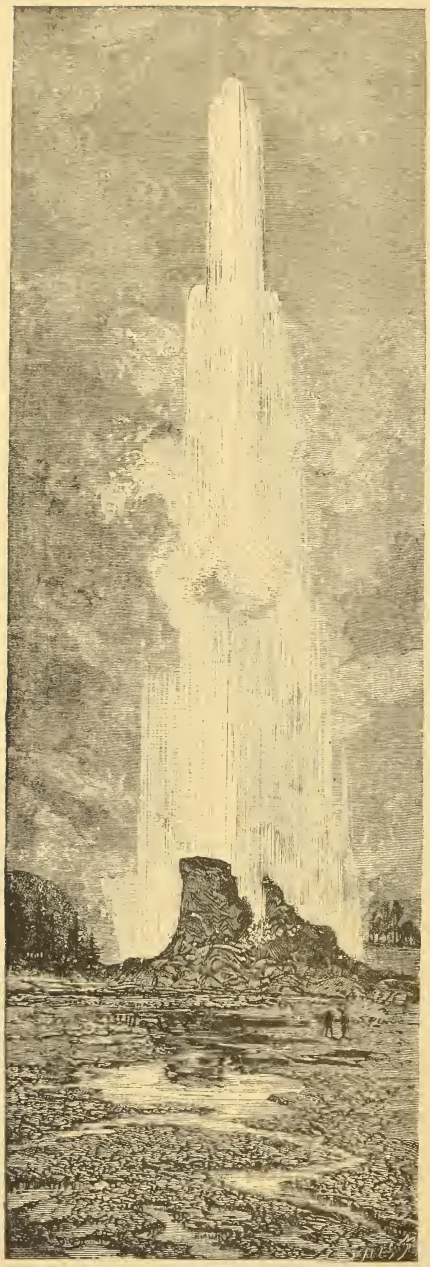
that illusion. The whole expanse bends as you walk, and treacherous fire-holes are as thick as blackberries.

Day by day, and year by year, the lime deposited by the play of the geysers accumulates, and often rises in fantastic resemblances. For instance, there is a Lion, Lioness, and two Cubs, which think nothing of "playing" every few moments. There are the Sponge, the Tea-kettle, the Giant, and



RESERVOIRS OF HOT WATER.

the Beehive. This last has vagaries. Once, as the writer was looking at it; and not a trace of steam visible, instantly, before one could say "Jack Robinson," it flew out into a magnificent steamberg (if one may say so), its roar awful to hear. Again in the night, the whole house was awakened by its tremendous bellowing. Other geysers are known as Bronze, the Solitary, Beach, the Lobster Claw, the Grand (whose intermittent play, twelve times repeated, was grand indeed), the Castle (nearly always tossing up spray, and



THE GIANT GEYSER.

often discharging a tremendous column of water, with a force that left no doubt of its power), the Splendid, the Saw-mill (a charming and almost perpetual fountain quite suitable for a village common), and thousands of others. There were the Beauty Pool (a bright orange and delicate yellow-rimmed affair), the Prismatic (exquisitely framed and garnished), and a host of others, all steaming, bubbling, and threatening. These were sufficiently amazing by daylight, but in the evening the weirdness was indescribable. The hotel laundry is fitted up with a natural boiler at its very door, the linen is immersed in a huge clothes-basket, and scalded without further ado. Of course, the feat of catching fish by casting the line on the right hand, and with no other movement than to throw it on the left, to cook the tidbit to perfection, was tried again and again.

The omission of Old Faithful's name thus far has been merely from the desire to set forth his interesting qualities by themselves, separated from the glamour of so many other geysers. Once in fifty-five minutes, to a dot, this wonderful mass of water spurts up from one hundred and fifty to two hundred feet, coming down in steaming spray, and, inundating the calcareous hillock, adds its new deposit to the growth. Sub-

THE CASTLE GEYSER.

joined is a partial list of the geysers, with their times and seasons added: —

		PLAYS.	HEIGHT.
Bee Hive	goes off in 7 to 25 hours.		
Giantess	" " " 14 days.	12 hours.	250 feet.
Grand	" " " 16 to 31 hours.	intermittent 12 times.	
Turban	" " " about 15 minutes.		
Castle	" " " 48 hours.		
Giant	" " " 4 days.		
Oblong	" " twice daily.		
Splendid	" " about every 3 hours.		
Faithful	" " " 55 min.		150 feet.
Young	" " often.		
Grotto	" " several times daily.		
Fun	" " 3 times daily.		
Riverside	" " 3 " "		

And there is one said to have a periodicity of seven years. When our enthusiastic traveller left the Upper Geyser Basin, it is recorded in a note-book, that "it was amid a terrific roar of underground artillery. The Bee Hive, Grand, Castle, Splendid, and Old Faithful, to say nothing of the Grotto and Saw-mill, united in a deafening salvo."

The Norris Geyser Basin is usually taken in detail on the *route* back from the Upper Basin to the Lower. Here is a most exquisite pink and blue lake, lying in its irradiated steam as in a rain of color. The effect was of gauze, tulle, illusion, swaying gently above the water. One might imagine it the birthplace of all the rainbows — the dyehouse of all flower-petals!

Just here, also, is the most terrible place conceivable! Jet-black mud boiling like mad in a lake-bed of alkaline formation, more bare and more forlorn than a snow-covered vale. A Steamboat Geyser or Vent (said to have had no existence in 1875, but in 1878 to have become flowing and powerful) roared frightfully, and "the reeking of foul and pestilential odors," as the guide-book has it, is not too strong a description. In this locality it is not safe to take a careless step. One must look well to one's goings and comings, for often it is necessary to turn back to seek for a path amid the dangers. The whole surface is alive, belching out horrible stenches and fearful noises, venting spiteful hissings, and spitting nasty mud. The water boils in bright sulphur vessels, in choicest blue urns, and in clear emerald vases. Ochre markings and brown traceries channel and rib the whole surface. Dante never conjured with more hellish powers! The world seems to reek and

smoke. Ugh! how it smells! The contrasts are constant. Close by jetty, seething caldrons, are those of lightest lemon, purest white, or old rose. Within the radius of a few feet all these colored pots are in wildest commotion, "gurgling, splashing, and exploding mud."

It is impossible to view, or review, these wonders of creation without a feeling that there is a Power above us!

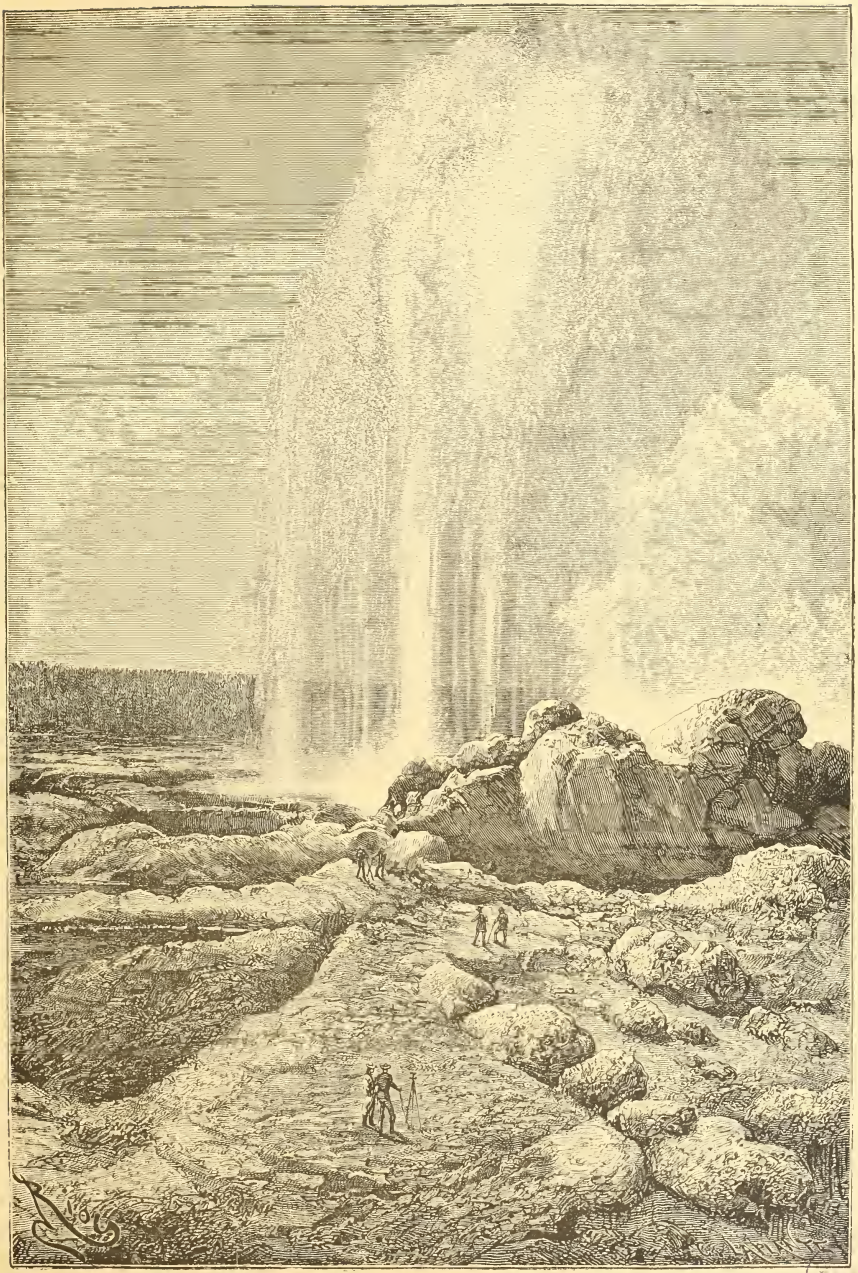
The Flora of the Park is larger than the short summers would have promised. There are three kinds of firs, black, red, and balsam, black spruce, white pine, red cedar, willow, and dwarf maple-trees. As many as fifty varieties of wild flowers have been found also, among them gentians, daisies, buttercups, etc. Geologically, the interest attaching to the journey must be great. Dr. Peale says "that the yellows which are so brilliant and widespread in the cliffs are due to sulphur, and the reds to oxidation of iron."

MUD VOLCANOES.

A fine, obsidian cliff, with its polished black *débris*, is a species of lava, which was, according to Pliny, "first known in Ethiopia. The name, however, seems to have been applied by the ancients to Chian marble, and is probably a false spelling of the Greek word *opsiamus*, signifying to reflect images, because the Chian marble was as hard as the volcanic glass, and used for mirrors."

It is supposed that the early travellers' tales can be accounted for without impeaching their veracity, by the known facts that "the hot, silicious water drawn into vegetation by capillary attraction deposits silica wherever it goes, and rapidly transforms all into rock." The fabled fruit may have been the colorless or amber crystals forming on the tree stems.

It can easily be seen that it is not worth while to build very substantial hotels on such unsubstantial surface. Consequently they are found to be of the slightest construction. The partitions between the rooms are heavy paper, or thin muslin spread over light framework. At the Norris



"OLD FAITHFUL."

Basin the writer heard five watches wound up in the adjoining rooms, though the architectural design brought only three single rooms in actual contact.

II.

An account of this interesting region would not be complete without some mention of the government's operations against the Indians there — notably between 1873 and 1877. In the former year Major-General Stanley was sent to explore the Yellowstone valley in the interests of the Northern Pacific Railroad. In command of his advance guard of two companies of cavalry rode the late General Custer, whose duty it was to find or make a practicable road for the main body of the expedition. On the morning of August 4, 1873, Custer noticed a recent trail of Indians near his camp, whose force appeared to have been comparatively insignificant, and the day's movements were, therefore, not altered in consequence. He tells the exciting episode which followed in these graphic words: —

"About ten o'clock we reached the crest of the high line of bluffs bordering the Yellowstone valley, from which we obtained a fine view of the river and valley extending above and beyond us as far as the eye could reach. After halting long enough to take in the pleasure of the scene, and admire the beautiful valley, spread out like an exquisite carpet at our feet, we descended, and directed our horses' heads toward a particularly attractive and inviting cluster of shade trees standing on the river bank, and distant from the crest of the bluffs nearly two miles. First allowing our thirsty horses to drink from the clear, crystal water of the Yellowstone, which ran murmuring by in its long, tortuous course to the Missouri, we then picketed them out to graze. Precautionary and necessary measures having been attended to, looking to the security of our horses, the next and equally necessary step was to post half a dozen pickets on the open plain beyond, to give timely warning in the event of the approach of hostile Indians. This being done, the remainder of our party busied themselves in arranging each for his individual comfort, disposing themselves on the grass beneath the shade of the wide-spreading branches of the cottonwoods that grew close to the river bank. For myself, so oblivious was I to the prospect of immediate danger, that, after selecting a most

inviting spot for my noonday nap, and arranging my saddle and buckskin coat in the form of a comfortable pillow, I removed my boots, untied my cravat, and opened my collar preparatory to enjoying to the fullest extent the delight of the out-door siesta. I did not omit, however, to place my trusty Remington rifle within easy grasp, — more from habit, it must be confessed, than from any sense of danger. Near me, and stretched on the ground, sheltered by the shade of the same tree, was my brother, the Colonel, divested of his hat, coat, and boots; while close at hand, wrapped in deep slumber, lay the other three officers, Moylan, Calhoun and Varnum. Sleep had taken possession of us all, — officers and men, — excepting, of course, the watchful pickets, into whose keeping the safety, the lives, of our little detachment, were for the time intrusted. How long we slept I scarcely know, — perhaps an hour, — when the cry of 'Indians! Indians!' quickly followed by the sharp, ringing crack of the pickets' carbines, aroused and brought us — officers, men, and horses — to our feet. There was neither time nor occasion for questions to be asked or answered. Catching up my rifle, and without waiting to don hat or boots, I glanced through the grove of trees to the open plain or valley beyond, and saw a small party of Indians bearing down toward us as fast as their ponies could carry them.

"'Run to your horses, men! Run to your horses!' I fairly yelled, as I saw that the first move of the Indians was intended to stampede our animals, and leave us to be attended to afterward. At the same time, the pickets opened fire upon our disturbers, who had already emptied their rifles at us, as they advanced, as if boldly intending to ride us down. As yet we could see but half a dozen warriors; but those who were familiar with Indian stratagems knew full well that so small a party of savages, unsupported, would not venture to disturb, in open day, a force the size of ours. Quicker than I could pen this description, each trooper with rifle in hand, rushed to secure his horse; and men and horses were soon withdrawn from the open plain, and concealed behind the clump of trees, beneath whose shade we were but a few moments before quietly sleeping. The firing of the pickets, the latter having been re-enforced by a score of their comrades, checked the advance of the Indians, and enabled us to saddle our horses, and be prepared for whatever might be in store for us.

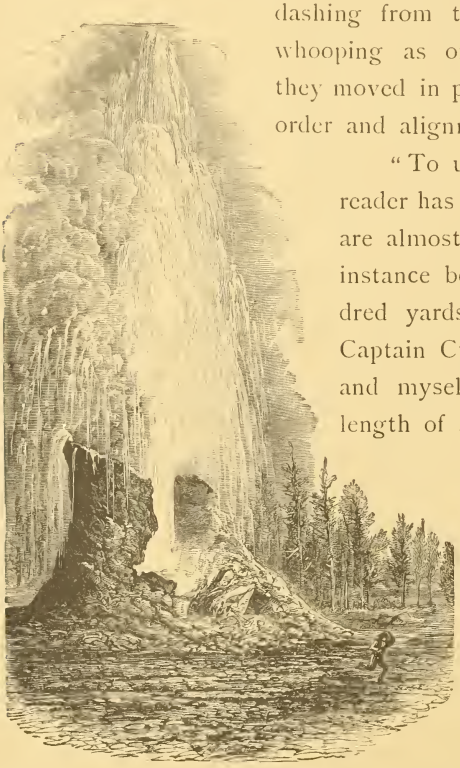
"A few moments found us in our saddles and sallying forth from the timber to try conclusions with the daring intruders. We could only see

ON THE MARCH THROUGH YELLOWSTONE PARK.

half a dozen Sioux warriors galloping up and down our front, boldly challenging us by their manner to attempt their capture or death. Of course, it was an easy matter to drive them away; but, as we advanced, it became noticeable that they retired, and, when we halted or diminished our speed, they did likewise. It was apparent from the first that the Indians were resorting to stratagem to accomplish that which they could not do by an open, direct attack. Taking twenty troopers with me, headed by Captains Custer and Calhoun, and directing Moylan to keep within supporting distance with the remainder, I followed the retreating Sioux up the valley, but with no prospect of overtaking them, as they were mounted upon the fleetest of ponies. Thinking to tempt them within our grasp, I, being mounted on a Kentucky thoroughbred, in whose speed and endurance I had confidence, directed Captain Custer to allow me to approach the Indians, accompanied only by my orderly, who was also well mounted, at the same time to follow us cautiously at a distance of a couple of hundred yards. The wily redskins were not to be caught by any such artifice. They were perfectly willing that my orderly and myself should approach them; but at the same time they carefully watched the advance of the cavalry following me, and permitted no advantage. We had by this time almost arrived abreast of an immense tract of timber growing in the valley, and extending to the water's edge, but distant from our resting-place, from which we had been so rudely aroused, about two miles.

"The route taken by the Indians, and which they evidently intended us to follow, led past this timber, but not through it. When we had arrived almost opposite the nearest point, I signalled to the cavalry to halt, which was no sooner done than the Indians also came to a halt. I then made the sign to the latter for a parley, which was done simply by riding my horse in a circle. To this the savages only responded by looking on in silence for a few moments, then turning their ponies, and moving off slowly, as if to say, 'Catch us if you can.' My suspicions were more than ever aroused, and I sent my orderly back to tell Captain Custer to keep a sharp eye upon the heavy bushes on our left, and scarcely three hundred yards distant from where I sat on my horse. The orderly had delivered his message, and had almost rejoined me, when, judging from our halt that we intended to pursue no farther, the real design and purpose of the savages were made evident. The small party in front had faced toward us, and were advancing as if to

attack. I could scarcely credit the evidence of my eyes; but my astonishment had only begun when, turning to the wood on my left, I beheld, bursting from their concealment, between three hundred and four hundred Sioux warriors, mounted and caparisoned with all the flaming adornments of paint and feathers which go to make up the Indian war costume. When I first obtained a glimpse of them, — and a single glance was sufficient, — they were dashing from the timber at full speed, yelling and whooping as only Indians can. At the same time they moved in perfect line, and with as seeming good order and alignment as the best-drilled cavalry.



A SUDDEN ERUPTION.

"To understand our relative positions, the reader has only to imagine a triangle whose sides are almost equal, their length in this particular instance being from three hundred to four hundred yards, the three angles being occupied by Captain Custer and his detachment, the Indians, and myself. Whatever advantage there was in length of sides fell to my lot, and I lost no time in availing myself of it. Wheeling my horse suddenly around, and driving the spurs into his sides, I rode as only a man rides whose life is the prize, to reach Captain Custer and his men, not only in advance of the Indians, but before any of them could cut me off.

"Moylan, with his reserve, was still too far in the rear to render their assistance available in repelling the shock of the Indians' first attack. Realizing the great superiority of our enemies, not only in numbers, but in their ability to handle their arms and horses in a fight, and fearing they might dash through and disperse Captain Custer's small party of twenty men, and having once broken the formation of the latter, despatch them in detail, I shouted, at almost each bound of my horse, 'Dismount your men! Dismount your men!' but the distance which separated us, and the excitement of the occasion, prevented Captain Custer from hearing me. Fortu-

nately, however, this was not the first time he had been called upon to contend against the sudden and unforeseen onslaught of savages; and, although failing to hear my suggestion, he realized instantly that the safety of his little band of troopers depended upon the adoption of prompt means of defence.

"Scarcely had the long line of splendidly mounted warriors rushed from their hiding-place before Captain Custer's voice rang out sharp and clear, 'Prepare to fight on foot!' This order required three out of four troopers to leap from their saddles and take position on the ground, where, by more deliberate aim, and being freed from the management of their horses, a more effective resistance could be opposed to the rapidly approaching warriors. The fourth trooper in each group of 'four' remained on his horse, holding the reins of the horses of his three comrades.

"Quicker than words can describe, the fifteen cavalrymen, now on foot and acting as infantry, rushed forward a few paces in advance of the horses, deployed into open order, and, dropping on one or both knees in the low grass, waited with loaded carbines — with finger gently pressing the trigger — the approach of the Sioux, who rode boldly down as if apparently unconscious that the small group of troopers were on their front. 'Don't fire, men, till I give the word, and, when you do fire, aim low,' was the quiet injunction given his men by their young commander, as he sat on his horse intently watching the advancing foe.

"Swiftly over the grassy plain leaped my noble steed, each bound bearing me nearer to both friends and foes. Had the race been confined to the Indians and myself, the closeness of the result would have satisfied an admirer even of the Derby. Nearer and nearer our paths approached each other, making it appear almost as if I were one of the line of warriors, as the latter bore down to accomplish the destruction of the little group of troopers in front. Swifter seemed to fly our mettled steeds, the one to save, the other to destroy, until the common goal has almost been reached, — a few more bounds, and friends and foes will be united, forming one contending mass.

"The victory was almost within the grasp of the redskins. It seemed that but a moment more and they would be trampling the kneeling troopers beneath the feet of their fleet-limbed ponies, when, 'Now, men, let them have it!' was the signal for a well-directed volley, as fifteen cavalry carbines

poured their contents into the ranks of the shrieking savages. Before the latter could recover from the surprise and confusion which followed, the carbines (thanks to the invention of breech-loaders) were almost instantly loaded, and a second carefully aimed discharge went whistling on its deadly errand. Several warriors were seen to reel in their saddles, and were only saved from falling by the quickly extended arms of their fellows. Ponies were tumbled over like butchered bullocks, their riders glad to find themselves escaping with less serious injuries. The effect of the rapid firing of the troopers, and the firm, determined stand, showing that they thought neither of flight nor surrender, was to compel the savages first to slacken their speed, then to lose their daring and confidence in their ability to trample down the little group of defenders in the front. Death to many of their number stared them in the face. Besides, if the small party of troopers in the front was able to oppose such plucky and destructive resistance to their attacks, what might not be expected should the main party under Moylan, now swiftly approaching to the rescue, also take part in the struggle? But more quickly than my sluggish pen has been able to record the description of the scene, the battle line of the warriors exhibited signs of faltering, which soon degenerated into an absolute repulse. In a moment their attack was transformed into flight, in which each seemed only anxious to secure his individual safety. A triumphant cheer from the cavalrymen, as they sent a third instalment of leaden messengers whistling about the ears of the fleeing redskins, served to spur both pony and rider to their utmost speed. Moylan by this time had reached the ground, and had united the entire force. The Indians, in the mean time, had plunged out of sight into the recesses of the jungle from which they first made their attack. We knew too well that their absence would be brief, and that they would resume the attack, but not in the manner of the first.

"We had inflicted no little loss upon them, — dead and wounded ponies could be seen on the ground passed over by the Indians. The latter would not be satisfied without determined efforts to get revenge. Of this we were well aware.

"A moment's hurried consultation between the officers and myself, and we decided that, as we would be forced to act entirely upon the defensive against a vastly superior force, it would be better if we relieved ourselves, as far as possible, of the care of our horses, and take our chances in the

THE GROTTO GEYSER.

fight which was yet to come, on foot. At the same time, we were then so far out on the open plain, and from the river bank, that the Indians could surround us. We must get nearer to the river, conceal our horses or shelter them from fire, then, with every available man, form a line or semi-circle, with our backs to the river, and defend ourselves till the arrival of the main body of the expedition, an event we could not expect for several hours. As if divining our intentions, and desiring to prevent their execution, the Indians now began their demonstrations looking to a renewal of the fight.

"Of course it was easy to see what had been the original plan by which the Indians hoped to kill or capture our entire party. Stratagem was to play a prominent part in the quarrel. The few young warriors first sent to arouse us from our midday slumber came as a decoy to tempt us to pursue them beyond the ambush in which lay concealed the main body of the savages; the latter were to dash from their hiding-place, intercept our retreat, and dispose of us after the most approved manner of barbarous warfare.

"The next move on our part was to fight our way back to the little clump of trees from which we had been so rudely startled. To do this, Captain Moylan, having united his force to that of Captain Custer, gave the order: 'Prepare to fight on foot!' This was quickly obeyed. Three-fourths of the fighting force were now on foot, armed with the carbines only. These were deployed in somewhat of a circular skirmish line, of which the horses formed the centre, the circle having a diameter of several hundred yards. In this order we made our way back to the timber, the Indians whooping, yelling, and firing their rifles as they dashed madly by on their fleet war ponies. That the fire of their rifles should be effective under these circumstances could scarcely be expected. Neither could the most careful aim of the cavalrymen produce much better results. It forced the savages to keep at a respectful distance, however, and enabled us to make our retrograde movement. A few of our horses were shot by the Indians in this retrograde skirmish; none fatally, however. As we were falling back, contesting each foot of ground passed over, I heard a sudden, sharp cry of pain from one of the men in charge of the horses; the next moment I saw his arm hanging helplessly at his side, while a crimson current, flowing near his shoulder, told that the aim of the Indians had not been

entirely in vain. The gallant fellow kept his seat in his saddle, however, and conducted the horses under his charge safely with the rest to the timber. Once concealed by the trees, and no longer requiring the horses to be moved, the number of horse-holders was reduced, so as to allow but one trooper to eight horses, the entire remainder being required on the skirmish-line. The redskins had followed us closely, step by step, to the timber, tempted in part by their great desire to obtain possession of our horses. If successful in this, they believed, no doubt, that, fight on our part being no longer possible, we must be either killed or captured.

"Taking advantage of a natural terrace or embankment, extending almost like a semicircle in front of the little grove in which we had taken refuge, and at a distance of but a few hundred yards from the latter, I determined, by driving the Indians beyond, to adopt it as our breast-work, or line of defence. This was soon accomplished, and we found ourselves deployed behind a natural parapet or bulwark, from which the troopers could deliver a carefully directed fire upon their enemies, and, at the same time, be protected largely from the bullets of the latter. The Indians made repeated and desperate efforts to dislodge us, and force us to the level plateau. Every effort of this kind proved unavailing.

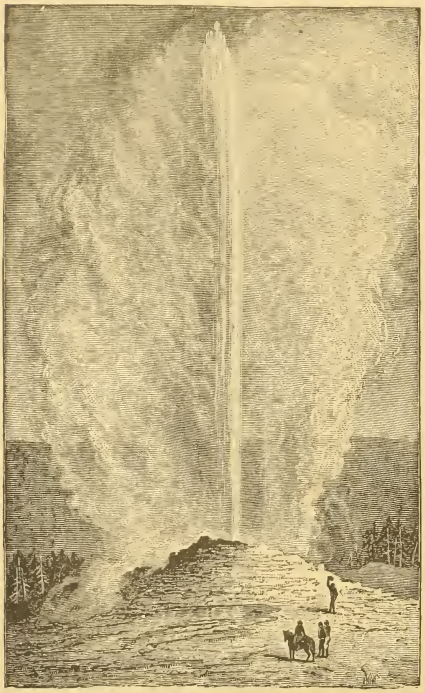
"Rather a remarkable instance of rifle-shooting occurred in the early part of the contest. I was standing in a group of troopers, and with them was busily engaged firing at such of our enemies as exposed themselves. Bloody Knife was with us, his handsome face lighted up by the fire of battle, and the desire to avenge the many wrongs suffered by his people at the hands of the ruthless Sioux. All of us had had our attention drawn more than once to a Sioux warrior who, seeming more bold than his fellows, dashed repeatedly along the front of our lines, scarcely two hundred yards distant, and, although the troopers had singled him out, he had thus far escaped untouched by their bullets. Encouraged by his success, perhaps, he concluded to taunt us again, and at the same time exhibit his own daring, by riding along the lines at full speed, but nearer than before. We saw him coming. Bloody Knife, with his Henry rifle poised gracefully in his hands, watched his coming, saying he intended to make this his enemy's last ride. He would send him to the happy hunting-ground. I told the interpreter to tell Bloody Knife that at the moment the warrior reached a designated point directly opposite to us, he, Bloody Knife, should fire at the rider, and I, at the same instant, would fire at the pony.

"A smile of approval passed over the swarthy features of the friendly scout as he nodded assent. I held in my hand my well-tried Remington. Resting on one knee, and glancing along the barrel, at the same time seeing that Bloody Knife was also squatting low in the deep grass with rifle levelled, I awaited the approach or the warrior to the designated point. On he came, brandishing his weapons, and flaunting his shield in our faces, defying us to come out and fight like men. Swiftly sped the gallant little steed that bore him, scarcely needing the guiding-rein. Nearer and nearer both horse and rider approached the fatal spot, when, sharp and clear, and so simultaneous as to sound as one, rang forth the report of the two rifles. The distance was less than two hundred yards. The Indian was seen to throw up his arms and reel in his saddle, while the pony made one final leap, and both fell to the earth. A shout rose from the group of troopers, in which Bloody Knife and I joined. The same moment a few of the comrades of the fallen warrior rushed to his rescue, and, without dismounting from their ponies, scarcely pulling rein, clutched up the body, and the next moment disappeared from view.

"Foiled in their repeated attempts to dislodge us, the Indians withdrew to a point beyond the range of our rifles, for the apparent purpose of devising a new plan of attack. Of this we soon became convinced. Hastily returning to a renewal of the struggle, we saw our adversaries arrange themselves in groups along our entire front. They were seen to dismount, and the quick eyes of Bloody Knife detected them making their way toward us by crawling through the grass. We were at a loss to comprehend their designs, as we could not believe they intended to attempt to storm our position on foot. We were not left long in doubt. Suddenly, and almost as if by magic, we beheld numerous small columns of smoke shooting up all along our front.

"Calling Bloody Knife and the interpreter to my side, I inquired the meaning of what we saw. 'They are setting fire to the long grass and intend to burn us out,' was the scout's reply, at the same time keeping his eyes intently bent on the constantly increasing columns of smoke. His features wore a most solemn look; anxiety was plainly depicted there. Looking to him for suggestions and advice in this new phase of our danger, I saw his face gradually unbend, and a scornful smile part his lips. 'The Great Spirit will not help our enemies,' was his muttered reply to my question. 'See,' he continued, 'the grass refuses to burn.' Casting my eyes along the line

formed by the columns of smoke, I saw that Bloody Knife had spoken truly when he said, 'The grass refuses to burn.' This was easily accounted for. It was early in the month of August; the grass had not ripened or matured sufficiently to burn readily. A month later, and the flames would have swept us back to the river as if we had been surrounded by a growth of tinder. In a few moments the anxiety caused by the threatening of this new and terrible danger was dispelled. While the greatest activity was maintained in our front by our enemies, my attention was called to a single warrior, who, mounted on his pony, had deliberately, and, as I thought, rashly, passed around our left flank, — our diminished numbers preventing us from extending our line close to the river, — and was then in rear of our skirmishers, riding slowly along the crest of the low river bank with as apparent unconcern as if in the midst of his friends, instead of being almost in the power of his enemies. I imagined that his object was to get nearer to the grove in which our horses were concealed, and toward which he was moving slowly, to reconnoitre, and ascertain how much force we held in reserve. At the same time, as I can never see an Indian engaged in an unexplained act without conceiving treachery or stratagem to be at the bottom of it, I called to Lieutenant Varnum, who commanded on the left, to take a few men and endeavor to cut the wily interloper off. This might have been accomplished but for the excessive zeal of some of Varnum's men, who acted with lack of caution, and enabled the Indian to discover their approach, and make his escape by a hurried gallop up the river. The men were at a loss even then to comprehend his strange manœuvre; but, after the fight had ended, and we obtained an opportunity to ride over and examine the ground, all was made clear, and we learned how narrowly we had escaped a most serious, if not fatal, disaster.



A GEYSER IN PLAY.

"The river bank in our rear was from twenty to thirty feet high. At its base, and along the water's edge, ran a narrow, pebbly beach. The redskins had hit upon a novel, but to us a most dangerous, scheme for capturing our horses, and, at the same time, throwing a large force of warriors directly in our rear. They had found a pathway beyond our rear, leading from the large tract of timber in which they were first concealed, through a cut or ravine in the river bank. By this they were enabled to reach the water's edge, from which point they could move down the river following the pebbly beach referred to, the height of the river bank protecting them perfectly from our observation. Thus they would have placed themselves almost in the midst of our horses before we could have become aware of their designs. Had they been willing, as white men would have been, to assume greater risks, their success would have been assured. But they feared that we might discover their movements, and catch them while strung out along the narrow beach, with no opportunity to escape. A few men on the bank could have shot down a vastly superior force. In this case the Indians had sent on this errand about one hundred warriors. After the discovery of this attack, and its failure, the battle languished for a while, and we were surprised to notice, not very long after, a general withdrawal from in front of our right, and a concentration of their forces opposite our left. The reason for this was soon made clear to us. Looking far to the right, and over the crest of the hills already described, we could see an immense cloud of dust rising and rapidly approaching. We could not be mistaken. We could not see the cause producing this dust; but there was not one of us who did not say to himself, 'Relief is at hand.' A few moments later a shout arose from the men. All eyes were turned to the bluffs in the distance, and there were to be seen coming, almost with the speed of the wind, four separate squadrons of Uncle Sam's best cavalry, with banners flying, horses' manes and tails floating on the breeze, and comrades spurring forward in generous emulation as to which squadron should land its colors first in the fight. It was a grand and welcome sight; but we waited not to enjoy it. Confident of support, and wearied from fighting on the defensive, now was our time to mount our steeds and force our enemies to seek safety in flight, or to battle on more even terms. In a moment we were in our saddles and dashing after them. The only satisfaction we had was to drive at full speed, for several miles, a force outnumbering us five to one. In this pursuit we

picked up a few ponies, which the Indians were compelled to abandon on account of wounds or exhaustion. Their wounded, of which there were quite a number, and their killed, as afterward acknowledged by them, when they returned to the agency to receive the provisions and fresh supplies of ammunition which a sentimental government, manipulated and directed by corrupt combinations, insists upon distributing annually, were sent to the rear before the flight of the main body. The number of Indians and ponies killed and wounded in this engagement, as shown by their subsequent admission, equalled that of half our entire force engaged.

"That night the forces of the expedition encamped on the battle-ground, which was nearly opposite the mouth of Tongue River. My tent was pitched under the hill from which I had been so unceremoniously disturbed at the commencement of the fight; while under the wide-spreading branches of a neighboring cottonwood, guarded and watched over by sorrowing comrades, who kept up their lonely vigils through the night, lay the mangled bodies of two of our companions of the march, who, although not present nor participating in the fight, had fallen victims to the cruelty of our foes."

This engagement was followed by a week of skirmishing, in which, while the troops were often outnumbered, the Indians were always repulsed and slowly driven back.

The years 1874 and 1875 were uneventful in the Yellowstone Indian troubles, but in 1876, the expedition against certain hostile bands, roaming through Dakota and Montana, ended in the terrible slaughter of Custer and his entire command, on June 22, by over twenty-five hundred Indians, concentrated in the valley of the Little Big Horn. No soldier ever came out to tell how it happened.

In the autumn, General Miles occupied the region with a strong force — afterwards used in the campaign against Sitting Bull — and the valley was cleared of hostile Indians.

1911
VJAN 17
J JAN 5
MAR 3
MAR 10
SEP 14
AUG 10

2
177
95

BOSTON PUBLIC LIBRARY
3 9999 08881 232 4